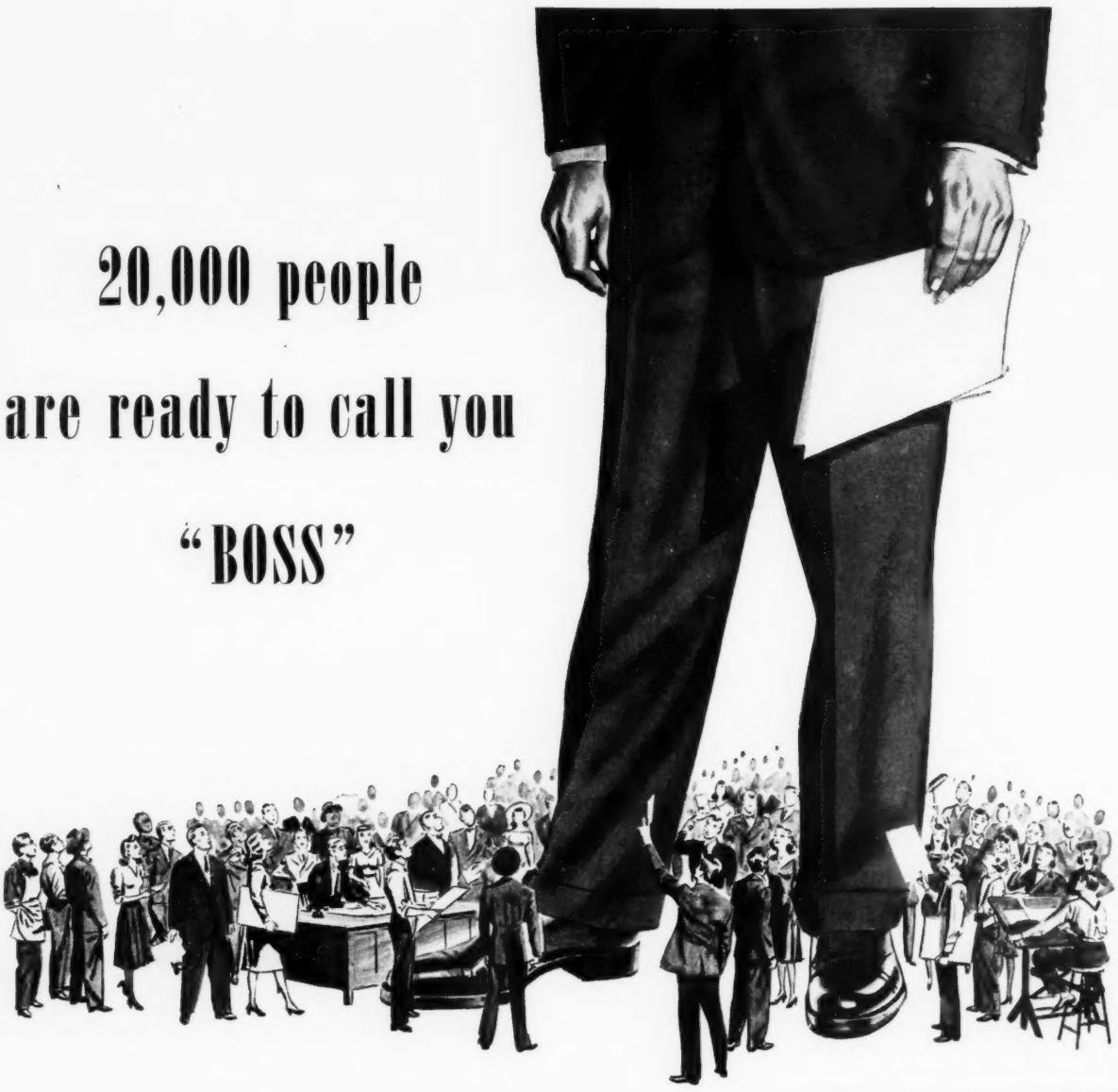
MODERN PACKAGING

20,000 people are ready to call you "BOSS"



THESE 20,000 people are in the business of making containers.

Some of them are research men . . . some marketing men . . . and some engineers. *Their* job is to help package products in the *right* container.

Among these 20,000 people, are also scientists who solve all sorts of packaging problems. . .

. . . and efficiency experts who improve packaging methods, cut down packaging costs.

. . . and Sales Roadmen to watch over your closing machines as well as salesmen to give you prompt, helpful service.

You'll find merchandising and advertising men, too. *Their* specialty is promoting packaged products.

Then, to keep container-making factories all over the country turning out regular and rush orders, there are executives with their secretaries, mechanics and laborers, truckmen and truck drivers.

These 20,000 people make up American Can Company.

Whenever you place an order with American Can Company, you put these 20,000 people to work for you. Your problems become *their* problems. And, in a real sense of the word, they call you "boss."

AMERICAN CAN COMPANY

230 Park Avenue • New York, N. Y.

What American Can Puts Against Packaging Problems

- 5 laboratories employing 134 people college trained in the pure, natural, and engineering sciences.
- 13 points from which customers' machinery is serviced . . . 6 points at which customers' machinery is built.
- 67 plants located strategically in the U. S., Canada, and Hawaii.
- A factory-trained sales staff who are specialists in many different types of industry.
- An executive personnel backed by a financial strength that is in itself a tangible business asset.

CANCO

Order for NEW Subscription

Please enter my subscription to begin with the.....issue.

$5.00 for one year ☐ Remittance enclosed ☐

$8.00 for two years ☐ Send invoice ☐

Name.....

Your position (or profession).....

Company.....

Street.....

City.....*State*.....

Products Manufactured.....

This is NOT an expiration notice

CANADA—$5.50—One Year
9.00—Two Years

FOREIGN AND SOUTH AMERICA } $6.00—One Year
10.00—Two Years

6-41

(All Subscriptions Payable in U. S. Currency or its Equivalent.)

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BUSINESS REPLY CARD

First Class Permit No. 2656 (Sec. 510, P. L. & R.), New York, N. Y.

MODERN PACKAGING

122 East 42nd Street

NEW YORK, N. Y.

Phoenix Compo (Band) Cap

GLASS CONTAINERS that wear the familiar gold band of the Phoenix Compo Cap are joined to an excellent packaging aid. For the Phoenix Compo Cap is a closure that has long enjoyed the approval of both packers and consumers of fine foods. The former appreciate its all 'round dependability; the latter, its ease of removal.

PHOENIX METAL CAP CO.
CHICAGO BROOKLYN

MODERN PACKAGING

JUNE 1941 VOLUME 14 NUMBER 10

CHARLES A. BRESKIN, Publisher
C. W. BROWNE, Editor
ANN RAY, Associate Editor
PEARL HAGENS, Associate Editor
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←JULY

The apple-growing industry of this country produces an annual crop of 120 million bushels. The why and wherefore of getting your apple a day in the "modern package way" will be found in a thorough-going study which will appear in the July issue of Modern Packaging.

All those who are interested in transparent packages designed for re-use will be interested in the article—to appear in July—on containers with a secondary utilitarian function.

ALAN S. COLE, General Manager
WALTER S. ROSS, Promotion
L. B. CHAPPELL, Los Angeles
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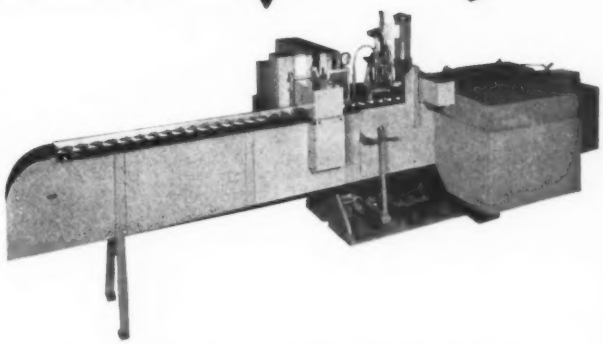
Published the 1st of each month by Breskin Publishing Corporation. Publication office, Twentieth and Northampton Sts., Easton, Pa. Executive and Editorial Offices, 122 E. 42nd St. (Chanin Bldg.), New York, N. Y. Phone AShland 4-0655. Mid-Western office, 221 N. LaSalle St., Room 1338, Chicago, Ill. Phone Randolph 6336. Pacific Coast Office, 427 West 5th St., Los Angeles, Cal. Cleveland, Ohio, Office, 1010 Euclid Ave. Phone Prospect 2020. Also Publishers of Modern Plastics, Packaging Catalog and sponsors of the All-America Package Competition and the Modern Plastics National Competition. Subscription $5.00 per year in United States; Canadian, $5.50; foreign, $6.00. Two year subscription United States, $8.00; Canadian, $9.00; foreign, $10.00. All foreign subscriptions payable in United States currency or equivalent in foreign currency computed in current exchange. Price this issue, 50¢ per copy. Copyright 1941 by Breskin Publishing Corporation. All rights reserved including the right to reproduce this book or portion thereof in any form. Printed in U. S. A. Member of the Audit Bureau of Circulations. Acceptance under the Act of June 5, 1934, at Easton, Pa. Authorized October 7, 1936.

★★ PACKAGING...and THE AMERICAN WAY ★★

ALL 6 PACKAGES ARE CARTONED ON 1 REDINGTON MACHINE!

It's *quickly* adjustable ⬇



IT'S not uncommon for Redington packaging machines to handle two or three different packages. But the J. B. Williams Co. needed a unit that would handle *six* of them . . . three sizes of their Shaving Cream and three sizes of their Glider No-Brush Cream. And Redington came through with an *adjustable* cartoning machine that's doing that job with remarkable efficiency . . . includes a circular too, all at a high speed.

It's not at all complicated to adjust the machine to any one of the six packages. The *change-over* can be made in a *few minutes*, in some cases . . . *much faster in all cases*, thanks to special engineering features developed by Redington engineers. One new development is the *adjustable bucket* . . . by merely moving the bucket's chains, the conveyor is set for another size tube of Glider or Williams' Shaving Cream.

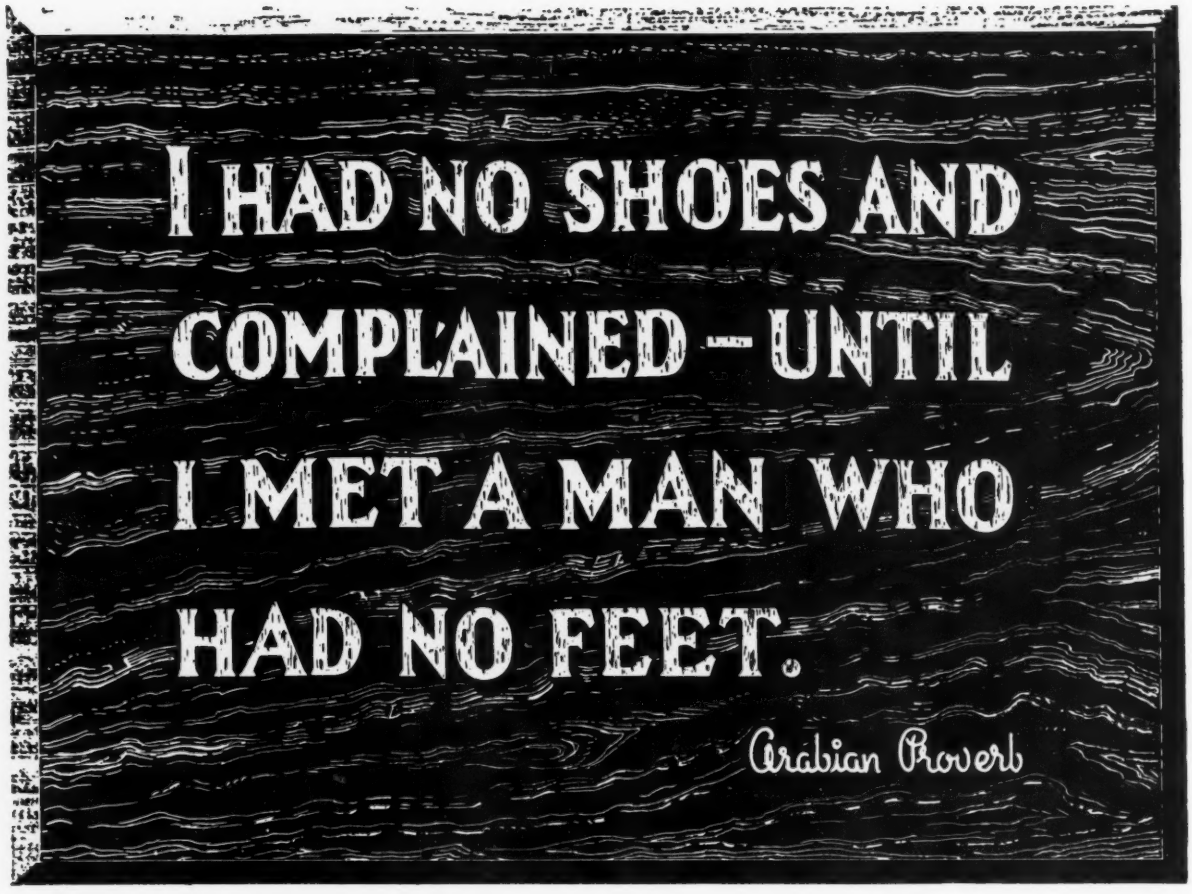
It's just another one of the many *hidden improvements* typical of Redington machines. Another especially important improvement on this machine is the *variable speed drive* which permits synchronization with the tube filling units.

But this isn't the first time the J. B. Williams Co. has looked to The Redington engineering staff. The first unit was installed back in *1917*. And during the *quarter of a century since*, Redington Cartoning Machines have been used continuously at the Williams plant. And we could tell you of many other "case histories" that might provide a clue to your own packaging problems.

F. B. REDINGTON CO. (Est. 1897) 110–112 So. Sangamon St., Chicago, Ill.

REDINGTON PACKAGING MACHINES ★

for CARTONING • WRAPPING • SPECIAL PACKAGING

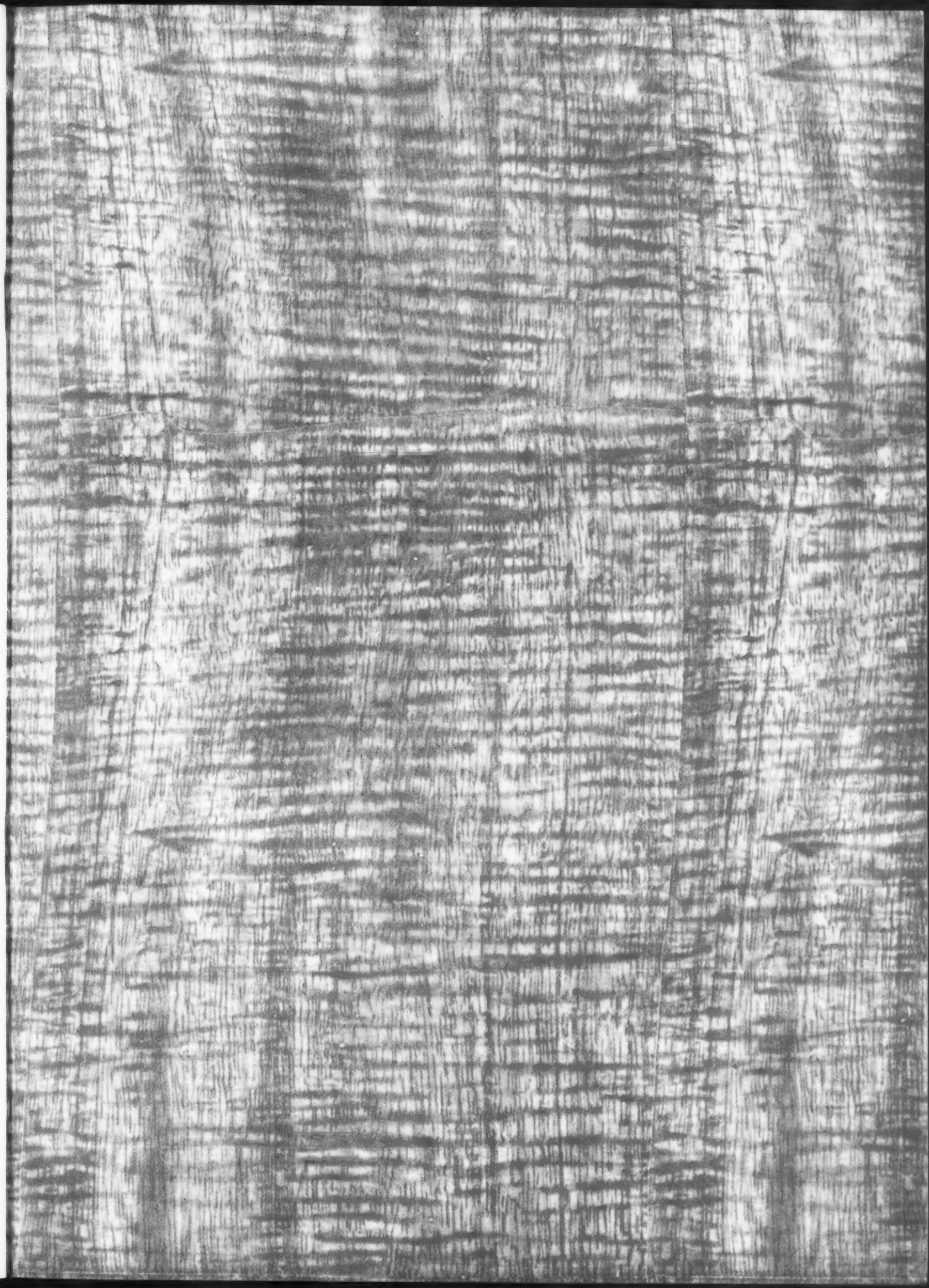


Another good thought passed on by the makers of

KVP

FOOD PROTECTION PAPERS

KALAMAZOO VEGETABLE PARCHMENT COMPANY
PARCHMENT KALAMAZOO MICHIGAN



— Ripple Grain —

C - 69 - C

Refreshingly different - Hampden's new woodgrain box papers are far ahead of the ordinary woodgrains in common use today. RIPPLE GRAIN - SATIN GRAIN - LACE GRAIN all three have an individual air of distinction. Why not send for sample book No. 110 showing many unusual wood tones, or ask for large sample sheets to try out on your box.

Hampden

GLAZED PAPER AND CARD COMPANY

Holyoke, Massachusetts

SALES REPRESENTATIVES

Chicago, Ill. — 500 So. Peoria St.
Philadelphia, Pa. — 414 Bourse B'ld'g.
New York, N. Y. — 60 East 42nd St.
San Francisco, Calif. — 420 Market St.
Toronto, Canada — 137 Wellington St. West
Fred'k. Johnson & Co., Limited — 234, Upper Thames Street — London, E. C. 4, England
Seattle, Wash. — 1203 Western Ave.
Dallas, Texas — 3905 Amherst Ave.

Soup Mix goes to Town

One of the biggest successes in recent food merchandising history has been scored by dry soup mixes. There's nothing particularly new about soup in this form. But until recently manufacturers were unable to devise an economical package that would keep this dehydrated product from absorbing moisture.

Then the *Pliofilm*-lined envelope was introduced. Ever since, sales have skyrocketed sensationally — to the tune of several million packages weekly!

It's easy to see why. The moistureproof *Pliofilm* lining keeps the mix moisture-free under even the most humid conditions, insures a soup tasty enough to satisfy the most critical appetite. And of course the low cost of this container makes it possible to sell soup mix for less than any other prepared soup.

If your packaging problem is one of keeping moisture in or out, why not inquire about *Pliofilm?* Write: Pliofilm Sales Department, Goodyear, Akron, Ohio.

FOODS ARE BETTER PACKAGED IN Pliofilm made only by GOODYEAR

Pliofilm—T.M. The Goodyear Tire & Rubber Company

Both MUST BE GOOD YOUR Product and YOUR Package..

Slowly the tight-rope performers inch their way across the dizzy heights. Then comes applause . . . thunderous applause!

Modern packaging, to win the plaudits of the crowd, demands *showmanship*, too. Your product . . . package . . . yes, *both must be good!*

Sefton designing engineers, with their creative ingenuity, have helped produce eye-appealing, sales-winning packages for many Food, Drug, Cosmetic and Automotive Parts manufacturers.

Typical examples are Stack-Top Can for display convenience, the Sealed Fibre Can for automotive accessories, the Pliofilm Can for added product protection, and the ever-popular String-Pull Can for ease in opening.

Sefton maintains a special department to help you solve difficult packaging problems. So for economy's sake, for helpful and understanding service, bring your packaging problems to Sefton. Write for further details.

As Packed and Merchandised by
WM. B. REILY & CO., INC.
NEW ORLEANS, LA.

SEFTON FIBRE CAN COMPANY

Plants—St. Louis, Missouri • New Iberia, Louisiana

DISTRICT OFFICES: Los Angeles, San Francisco, Denver, Tampa, Chicago, Des Moines, New Orleans, Boston, Detroit, Kansas City, St. Paul, Omaha, New York, Cincinnati, Cleveland, Oklahoma City, Pittsburgh, Memphis, Nashville, Dallas, Houston, Salt Lake City, Seattle

CLIMB THE SILVER LADDER!

with Beau Tye

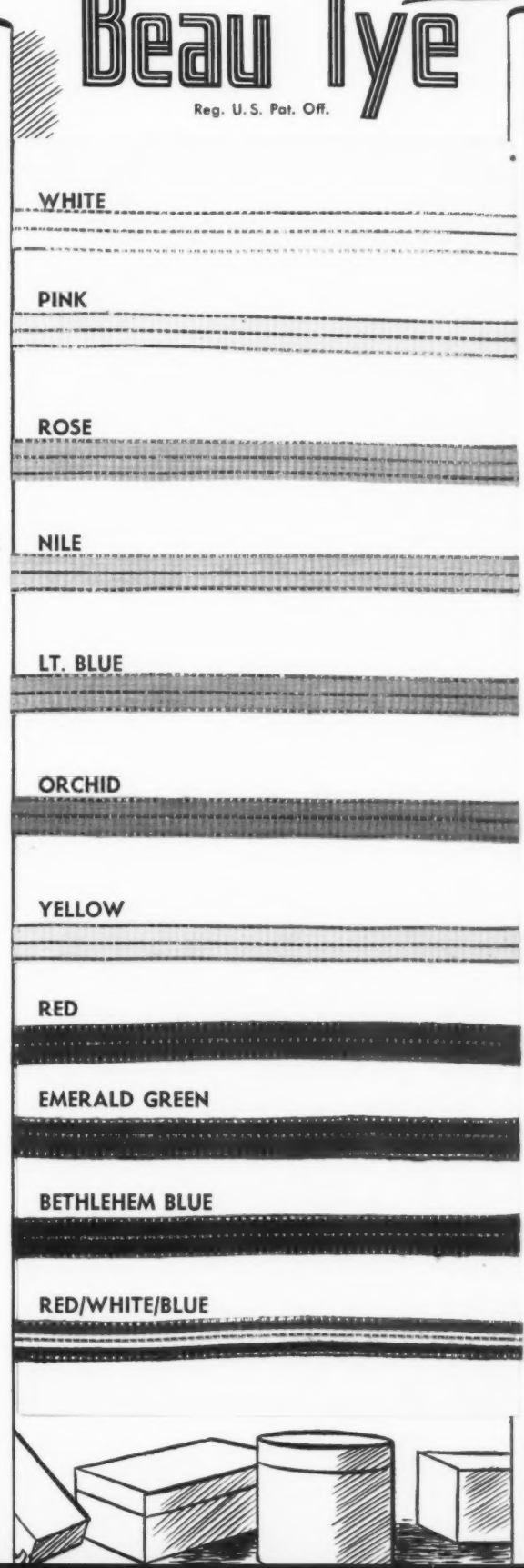
Reg. U. S. Pat. Off.

CONSUMERS have money to spend this year—the national income is way up—and it's the smart packagers who offer the *different* packages that are going to capture the lion's share of the business.

THERE'S a real affinity between the silver threads that run through De-Luxe Lahm Beau Tye and the silver of more sales. The metallic luster of shiny silver lends a touch of delight to any package or product — sets it off from its competitors.

THIS is going to be the biggest gift year we've ever had—that's the consensus of trade opinion in the May *Modern Packaging*. Snare your share of the market now by specifying sparkling De-Luxe Lahm Beau Tye, the aristocratic tie in the medium price range.

Send for working samples — or send us packages which we'll return with suggested ties.



FREYDBERG BROS.

INCORPORATED

212 FIFTH AVENUE

NEW YORK CITY

POSITION WANTED
"Go-getter" salesman wants job with manufacturer. Excellent appearance and good talker. Has fine "contacts" and controls large volume of business. References cannot be furnished but a trial will convince you.
DAILY STAR
Box 222

Of course you wouldn't answer that Ad...

WHEN you hire a salesman you want to know all about him. In evaluating his ability you will use the same standards that you and other employers have adopted in building successful sales organizations. His references must be genuine and cover the points that bear upon his probable value to your business.

Buying advertising in business papers is like hiring salesmen. The publication is the salesman that takes your sales message to businessmen. Advertisers have also adopted definite standards for measuring the circulation values of business papers. They want to know how much circulation a publication has, how it was obtained, where it goes, who reads it, how much they paid for it and many other facts.

A. B. C. PROTECTS YOUR ADVERTISING

Paid subscriptions, renewals, evidence of reader interest, are among many facts in A. B. C. reports that are definite guides to effective media selection. When you buy space in A. B. C. publications your advertising is safeguarded by audited circulation. Always ask for A. B. C. reports.

This essential information is found in the reports issued by the Audit Bureau of Circulations, a cooperative and non-profit association of advertisers, advertising agencies and publishers.

This publication is a member of the Bureau in order that we may cooperate with advertisers by submitting to them our circulation facts and figures in A.B.C. reports—verified information that enables advertisers to select the right media with assurance that they will get what they pay for.

MODERN PACKAGING

Member of the Audit Bureau of Circulations ABC *Ask for a copy of our latest A.B.C. report*

A. B. C. = AUDIT BUREAU OF CIRCULATIONS = FACTS AS A MEASURE OF CIRCULATION VALUES

Now...FULL Color at 2-Color Cost

in your Consumer Folders, Circulars, Booklets, Broadsides, Streamers, Displays, Box Wraps, Cartons, Labels and other Advertising Material

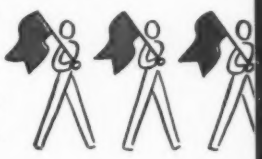
IN the past, the use of FULL Color in advertising and sales material has been costly . . . expensive as compared to the use of 2 colors . . . and difficult to handle, especially on small runs.

But now you can forget this old obstacle of "high cost." Now you can modernize and STEP-UP your usual 2-color Consumer Folders and other advertising material with beautiful, dramatic FULL Color. You can give them a FRESH, new appearance and more sales appeal . . . AT NO EXTRA COST . . . even on small quantities!

Stecher-Traung Lithograph Corporation, for over 75 years a great American Institution, and a leader in fine color lithography, brings industry a new, modern service. High-quality, low-cost lithography on all types of advertising material! A service proved and perfected during the past two years and offered today on a greatly increased basis.

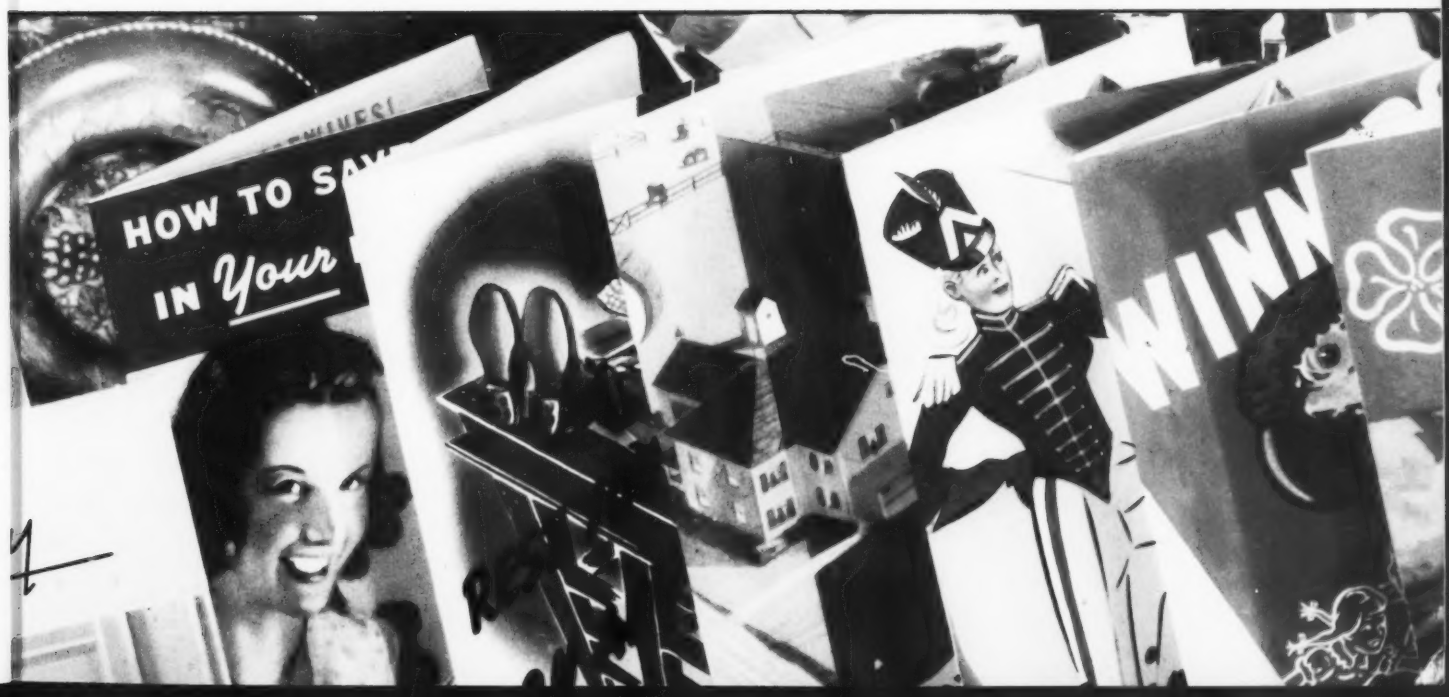
We are able to give you the finest lithography in FULL Color for as little as you usually pay for only 2 colors because of our unexcelled facilities, efficiently planned production, quantity buying and tremendous volume.

Stecher-Traung's plants in Rochester, N. Y. and San Francisco, Calif. are two of the largest, finest lithograph plants in the world . . . two of the most modern . . . two of the most complete. Each plant is self-contained and is equipped to handle every operation from start to finish *under one roof.*



A score of skilled artists and expert color photographers are at your serv-

Illustration shows a few of the hundreds of sales-building FULL-Color Consumer Folders produced by Stecher-Traung



ice. We coat our own paper, grind our own inks (nearly a million pounds a year), do our own varnishing and other finishing operations. Our battery of giant 4-Color Offset Presses is the largest in the country. Stecher-Traung serves the honor-roll of American business with an annual volume of lithography running into several millions of dollars.

Only Stecher-Traung Offers FULL Color "Gang Run" Service

Your work can be done on the same money-saving basis, whether you require large quantities or only small quantities because of our unique FULL Color "Gang Run" Service. Many small jobs of the same type are combined on one large sheet to give you the economy of large quantity production. This service means you can—

- **Step up your advertising material, make it more colorful and effective, without adding to its cost.**
- **Order frequent small quantities, rather than large quantities, to keep your material fresh and up-to-date.**
- **Save by keeping inventory down and cutting out waste.**
- **Make test runs in small quantities and revise for reruns.**
- **Save money on small reruns.**
- **Get good service because of our frequent "Gang Runs."**

Stecher-Traung's many advantages result in the most efficient large-scale production and a saving in effort and time for you, besides insuring the most confidential treatment of your work. And the saving in cost means you can have beautiful, dramatic, sales-boosting FULL Color material in large or small quantities without spending more than you usually pay for only 2 colors.

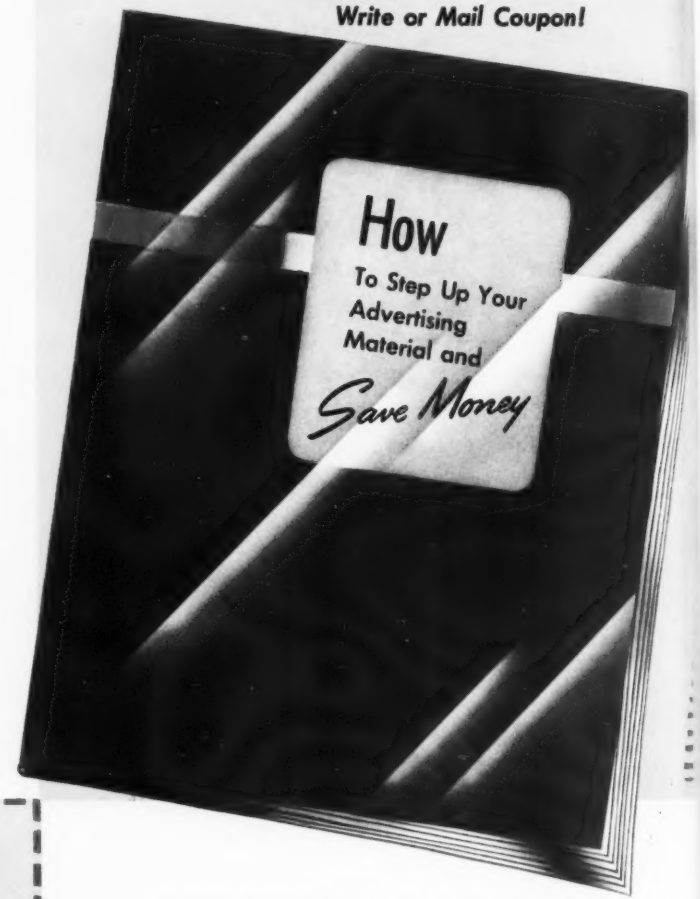
We have offices in leading cities and fifty representatives ready to serve you. Ask to see samples of our work, get our quotations on your jobs . . . and mail the coupon below for our new 36-Page Book.

Free 36-PAGE BOOK!

This 36-page book, just off the press, gives you a wealth of information which will save you and your organization time and money.

- **Tells how to use FULL Color easily.**
- **Contains Color Charts showing the basic colors and unlimited derivative shades.**
- **Illustrates the various methods used for FULL Color reproduction.**
- **Shows how to make a Folder Layout.**
- **Gives 20 popular Folder Styles and Sizes.**
- **Tells more about our service and how you can save money on the finest lithography.**

Yours Free—
Write or Mail Coupon!



STECHER-TRAUNG LITHOGRAPH CORPORATION, Department 702
274 North Goodman St., Rochester, N. Y.
600 Battery St., San Francisco, Calif.

Please send a copy of your new 36-page, Illustrated, Full Color Book on "How to Step Up Your Advertising Material and Save Money"—free of charge and without obligation.

Name.....**Title**.....

Firm.....

Address.....

City.....**State**.....

STECHER-TRAUNG LITHOGRAPH CORPORATION

ROCHESTER, N. Y. **SAN FRANCISCO, CALIF.**

BALTIMORE	HARLINGEN	OAKLAND
BOSTON	HOUSTON	PORTLAND, ORE.
CHICAGO	LOS ANGELES	PROVIDENCE
CLEVELAND	MACON	SACRAMENTO
COLUMBUS	NEW YORK	ST. LOUIS
DETROIT		SEATTLE

See HOW PENN TOBACCO COMPANY PACKAGED A SPECIAL DEAL

Read WHAT HAPPENED— AND WHY

"Sold spectacularly when displayed . . . Salesmen's reports read: 'Outsold any other $1.00 deal in the retail stores' . . . Whole secret of success is appearance and transparent cover which makes contents visible."

John B. White
Sales Promotion Manager
Penn Tobacco Company

Learn HOW RITCHIE CAN HELP YOU, TOO

Maybe more dealers will display *your* product in a new Transparent Package by Ritchie. Maybe more people will see and buy it. Ask Ritchie to help you find out. Ritchie's design talent is free. Ritchie's merchandising sense is the kind acquired only through long experience in a variety of fields. Ritchie's cost-saving production facilities are, of course, among the largest and most modern in packaging. You'd expect that of a firm seventy-five years young—and still growing!

75TH Anniversary Year

W. C. *Ritchie* AND COMPANY

SET-UP PAPER BOXES
FIBRE CANS
TRANSPARENT PACKAGES

8840 BALTIMORE AVENUE • CHICAGO

NEW YORK DETROIT LOS ANGELES ST. LOUIS MINNEAPOLIS DENVER MIAMI

"What Big Windows You Have, Grand Pepperell!"

Pepperell Towel boxes with windows of Lumarith Protectoid. Designed by Alan Berni. Made by Robertson Paper Box Co.

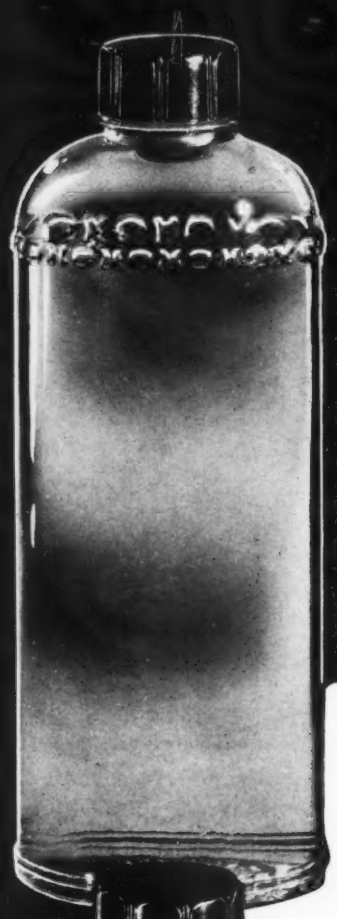
To merchandise their colorful new towels, Pepperell Mfg. Co. wanted a package combining maximum display with dependable protection. They got what they wanted in these boxes—with big, big windows of Lumarith Protectoid.

Equally suitable for spot-gluing or over-all lamination, Lumarith Protectoid throws the window field wide open. It never develops annoying wrinkles . . . never shrinks and pulls away from side supports nor warps the cover. Does not discolor or dry out with age. Stays smooth and sparkling indefinitely!

For windows, wraps, envelopes, rigid containers, and all other forms of transparent packaging . . . Celluloid has the materials and the experience you want. Write *Packaging Division*, CELLULOID CORPORATION, 180 Madison Ave., New York City. Established 1872. Sole Producer of Celluloid, Lumarith, and Lumarith Protectoid (Trademarks Reg. U.S. Pat. Off.)

LUMARITH PROTECTOID
REG. U.S. PAT. OFF.

If you are working on a transparent package . . . Get in touch with CELLULOID also Headquarters for PLASTICS



A-245
4 oz.

A-414
2 oz.

A-416
2 oz.

A-657
1 Dr.
1¼ Dr.

A-391
1 oz.

A-805
2 Dr.

BOTTLES *like these* *at practically* STOCK PRICES

Here are six bottles of artistic and distinctive design which you can buy at practically STOCK prices. Although the actual bottles are not carried in stock, the moulds are already available and your order can be produced without involving any "special mould" cost.

In addition to these 6 designs, a number of other highly individual bottles are available on the same basis. Our representative will be glad to show you samples and quote on your requirements.

SWINDELL BROS., BALTIMORE, MD.

200 FIFTH AVENUE, NEW YORK

ROBERTO ORTIZ—HAVANA, CUBA

When you think of bottles think of

Swindell

What makes her recommend a certain brand?

The reason a shopper invariably selects one particular brand and even strongly recommends it to her friends often lies in little things. Like the bright gleam of cans made from BethColite, for instance. The mirror-like surface catches her eye, gives her a feeling that here is greater cleanliness, extra goodness and quality.

And she's right! BethColite really does make a better can. Its special steel base forms easily, assures tight seams. Its uniform, denser tin coating provides an extra margin of safety against corrosion and contamination.

Cut down your rejects, your complaints. Get a higher yield. And induce more housewives to buy your pack. Specify containers made of BethColite.

Bethcolite COLD-REDUCED TIN PLATE MADE BY BETHLEHEM STEEL

THIS IS *YOUR*
PACKAGING DOLLAR

You can spend it for just an ordinary corrugated box—OR

IT WILL GET YOU ALL OF THESE H&D *PACKAGE DIVIDENDS* =

DISPLAY

Display **your** product up front on the merchandising stage—on counters, in show windows throughout the country. The profit package can do it.

SALES HELP

During the Christmas rush, what dealer wouldn't welcome *prepacked* merchandise which requires no further wrapping or packing?

HOLIDAY MERCHANDISING

Prosaic commodities become gift items when they're sold in gift packages. Your packaging dollar can earn a holiday merchandising dividend.

ADVERTISING VALUE

Some packages are *news*. Advertised dramatically, they help sell the product. Your H & D profit package will give you this dividend.

HOW TO MAKE YOUR PACKAGING DOLLAR PAY MORE DIVIDENDS

Colorfully illustrated case histories of successful H & D corrugated boxes . . . practical ideas to help you get the plus-values for your packaging dollar. Get your free copy of "CLOSE-UPS OF SUCCESSFUL CORRUGATED BOXES."

Every successful corrugated box starts with a good packaging idea. Many profitable ideas originate in the Package Laboratory of H & D . . . ideas like the patented Duplex shipping-display box, the "airplane luggage" box, inexpensive stock patterns and colors . . . and many others. Does your packaging dollar bring you dividends like these? Before you spend many more of those dollars, consult the Authority on Packaging . . .

HINDE & DAUCH 4114 Decatur Street, Sandusky, Ohio

Better See H&D *Authority on Packaging*

FACTORIES: BALTIMORE • BOSTON • BUFFALO • CHICAGO • CLEVELAND • DETROIT • GLOUCESTER, N. J. • HOBOKEN, N. J. KANSAS CITY, KANS. • LENOIR, N. C. • MONTREAL • MUNCIE, IND. • RICHMOND, VA. • ST. LOUIS • SANDUSKY, OHIO • TORONTO

Sparkling, transparent SYLVANIA cellophane captures health and imprisons the freshness of perishable merchandise over long periods of time. And it insures health in another way—by protecting and keeping uncontaminated the multitude of articles which consumers purchase for their personal use. Its third contribution to a healthy America lies in its attractiveness—helping to sell its people fresher, cleaner merchandise.

Copr. 1941 Sylvania Ind. Corp.

SYLVANIA INDUSTRIAL CORPORATION

Executive and Sales Offices: 122 E. 42nd Street, New York

Works: Fredericksburg, Va.

Branches or Representatives:

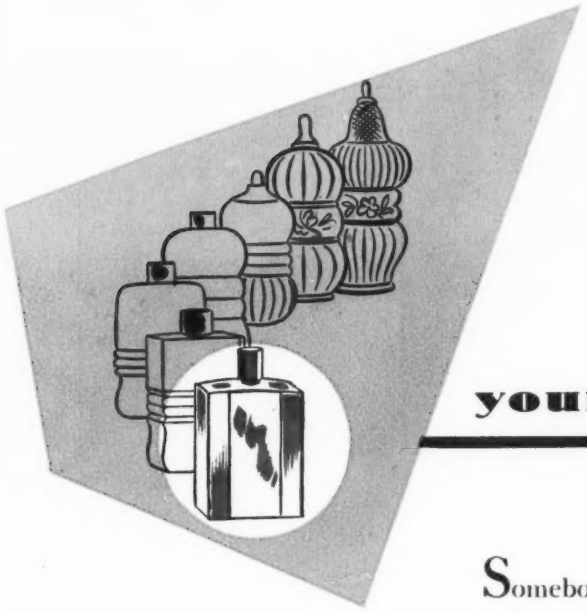
ATLANTA, GA..... 78 Marietta Street
BOSTON, MASS., 201 Devonshire St.
CHICAGO, ILL., 427 W. Randolph St.
DALLAS, TEX. 812 Santa Fe Building
PHILA., PA... 260 South Broad Street

SYLVANIA CELLOPHANE

Pacific Coast:
Blake, Moffitt & Towne
Offices & Warehouses in Principal Cities

Canada:
Victoria Paper & Twine Co., Ltd.
Toronto, Montreal, Halifax

"SYLVANIA" IS A REGISTERED TRADE MARK FOR CELLULOSE PRODUCTS MANUFACTURED BY SYLVANIA INDUSTRIAL CORPORATION



your greatest competitor is change!

Somebody has said that the most constant thing about people is their *inconstancy*. People are continually changing their habits, their tastes, their customs—and even their minds.

You may not like change or changes. Few of us do. But if your business depends upon public favor and public custom, you must respect the tenor and tempo of the day.

Your packages, for example, may have had a strong appeal to buyers during the booming '20's. It does not necessarily follow that the same packages will attract the buyers of *today*.

During over 50 years of specializing in glass container manufacturing, we have followed closely the subtle, and the revolutionary, changes in packaging. We think we know how to design and make glass bottles that are up-to-the-minute in appeal. At least many important manufacturers of cosmetics, drugs, foods and household specialties tell us so.

A letter from you may be the first step toward a profitable working partnership in planning and producing your glass containers.

CARR-LOWREY
3-Point Service

creates

1 PRACTICAL
2 ATTRACTIVE
3 ECONOMICAL

glass packages for cosmetics, drugs, foods household products.

The appearance of old Chinese vases is recaptured in modern flint glass for Chen Yu Nail Polish by "3-point" glass production service. Rich color of the polish furnishes a dramatic background for the gold Chinese lettering, the product's trademark.

Carr-Lowrey Glass Co.

Factory and Main Office: BALTIMORE, MD.

New York Office: 500 Fifth Avenue

Chicago Office: 1502 Merchandise Mart

TRANSPARENT ACETATE

Transparent Packages NOW at Practical Prices

New mechanical developments—already installed and operating in our plant—have reduced costs in the making of transparent acetate boxes.

They now become practical for many products, either in the simple forms illustrated here or in more intricate units created by our designing staff.

Printing and color may be introduced on the transparent surfaces or in connection with cardboard sections of the packaging.

Would you care for costs and suggestions on **WARNERCRAFT** acetate packaging at the new price scale?

WARNERCRAFT
THE FINEST WORD IN PACKAGING

WARNERCRAFT offers a complete cardboard packaging service, with Set-Up or Folding Boxes to best suit the particular item that you sell, and our full time Designing Staff is experienced in merchandising and display.

THE WARNER BROTHERS COMPANY
BOX DIVISION—BRIDGEPORT, CONNECTICUT
200 Madison Avenue, New York, N. Y. AShland 4-1195

YES SIR! FROM SOUP TO NUTS!

MILPRINT PACKAGING ....Gets Results!

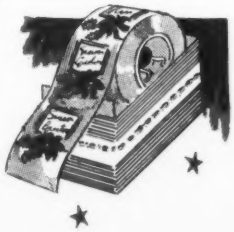
Almost any item that can be packaged at all can be packaged better in a MILPRINTED wrap or bag of sparkling "Cellophane". ★ Let us show you what can be accomplished. Our corps of packaging experts like nothing better than to sail into a knotty problem. And whether the product is new or old, big or little, we usually can come through with a sales winner. ★ For a truly complete packaging service . . . from first rough sketch to prompt delivery of your order . . . with the accent on "service" all the way through . . . get in touch with MILPRINT today.

READY-MADE *Holiday* MATERIAL

For every important Fall Holiday . . . a complete line of gay stock bands, bags and wraps of printed "Cellophane".

If you haven't already received one, write for your copy of Milprint's Fall Catalog of Holiday Packaging Ideas. It s the best ever!

As an added convenience . . . many new bands now available in continuous roll form . . . packed in a colorful dispenser box.



Milprint, Inc. MILWAUKEE PHILADELPHIA LOS ANGELES

★ ★ ★ AMERICA'S FIRST Cellophane PRINTERS

PROVEN LEADERS IN THE PACKAGING INDUSTRY • REPRESENTATIVES IN ALL PRINCIPAL CITIES

KIMBLE CONTAINERS

For Assurance
IN PACKAGING . . .

For A NEW VERSION OF YOUR *OLD* PACKAGE
A RAPID ACCEPTANCE OF YOUR *NEW* PRODUCT
Consult Kimble

K
KIMBLE GLASS

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY . . . . VINELAND, N. J.
NEW YORK • PHILADELPHIA • DETROIT • CHICAGO
BOSTON • INDIANAPOLIS

Mr. Owl, I'm

a pretty wise bird myself

. . . I'M GETTING FINER FOLDING CARTONS FOR MY MONEY WITH COATED LITHWITE

1. YOU BET I WAS WISE switching from uncoated stock — particularly when *Coated* Lithwite folding cartons don't cost me a red cent more.

2. LOOK AT THE "OOMPH". No question about it, these *Coated* Lithwite cartons have more "come-hither". They're brighter—snappier.

3. THEY PEPPED UP our sales staff—and got a big okay from our production department. *Coated* Lithwite cartons mean fewer sealing troubles in our high-speed filling and sealing machines!

COATED LITHWITE is a revolutionary new development in boxboard. It's made and coated on one machine—at high speed—in one continuous operation. Has a smooth, velvety *precision-engineered* surface that holds up inks brilliantly. Takes 120-line screen halftones, and Ben Days, clean as a whistle. Handles solids perfectly—without mottling. And think of it, in *Coated* Lithwite you get this extra look of quality without extra cost.

Make this convincing side-by-side test. Send us a set of your original carton engravings. We'll prove them on *Coated* Lithwite—so you can make a side-by-side comparison with the cartons you are now using. We have an idea *Coated* Lithwite will open your eyes. Send us those plates today—and see.

ATTENTION CARTON MAKERS! THIS REVOLUTIONARY NEW CARTON BOARD CAN HELP YOU GET BUSINESS

With the rising cost of business facing every folding carton user, you can count on a lot of them listening with open ears when you tell them about *Coated* Lithwite. For *Coated* Lithwite, with its finer printing surface, finer look and feel, *costs no more than many uncoated boards.* And that means an opportunity for you to increase your sales.

Send for free testing sheets! *Slip a few into a press, or have your ink supplier prove up a few sheets. See for yourself the extra quality you can deliver to your customers—the extra customers Coated Lithwite can deliver to you.*

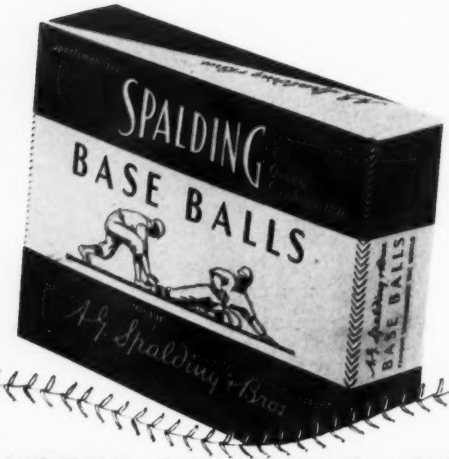
GARDNER-RICHARDSON — ENGINEERED PRECISION

The GARDNER-RICHARDSON Co.

Manufacturers of Folding Cartons and Boxboard

MIDDLETOWN, OHIO

Sales Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT



THE BATTER LAMS THE HORSEHIDE
–FITCHBURG* LAMINATES THE BOX

* *In collaboration with Lowe Paper Company and Folding Boxes, Inc.*

. . . . and both baseball and box are built to take it. And to prove that a Fitchburg Finish laminating box wrap is not only tough, but also provides the foundation for both artistic design and artistic printing, this Spalding box scored a hit . . . . HONORABLE MENTION IN THE 1940 ALL-AMERICA. If you're looking for something on the ball, to put on the package, let Fitchburg put the "lam" in a laminating paper for your box, carton or container. It's a national pastime—combining pleasure with profit, to play ball with Fitchburg. You'll be surprised at the cost, too. Unsurpassed laboratory facilities, lots of experience, and up-to-the-minute equipment have worked the old squeeze play on cost.

Put your package right over the plate with Fitchburg Finish.

Fitchburg Paper Company

THE CONVERTING PAPER DEPARTMENT OF THE PACKAGING INDUSTRY

Mills: FITCHBURG, MASSACHUSETTS

250 Park Avenue, New York City ★ SALES OFFICES ★ 11 South LaSalle Street, Chicago

We figure it this way, Ed . . . it's *Packaging Insurance*

"When our product goes into this bottle, it's as good as we know how to make it. To *keep* it that way is the problem.

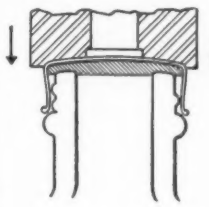
"And, believe me, Ed, the Rolled-On method by which these Alseco Seals are applied, takes care of that. We figure it's 'packaging insurance' because we're *sure* that when the consumer opens our package, the contents will be just as we made 'em.

"You see, with the Rolled-On method, each seal is tailor-made. The threads are Rolled-On after the liner is seated. They fit the *glass* threads exactly.

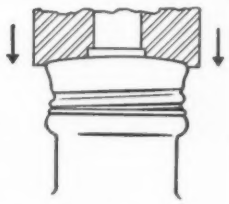
"No misfits. No leakers. No breathers. These Alseco Seals really seal! Yet they're easy to unscrew because they're never wedged or cocked.

"Let me show you this diagram . . ."

HOW THE ROLLED-ON METHOD WORKS



Plain-skirted Alseco Seal is uniformly seated. Under stationary top pressure, container lip is imbedded in liner evenly all around.



Then, to hold that seal securely, threads are Rolled-On, using the container's own threads as the pattern. Possibility of leakage or evaporation is reduced to minimum. Alseco Seal stays tight, but opens and recloses easily because it is tailor-made.

TAILOR-MADE

ALSECO SEALS

ALUMINUM SEAL CO., 1345 THIRD AVE., NEW KENSINGTON, PA.
At your service: 27 years of experience building quality seals and sealing machines.

DEFENSE COMES FIRST

The urgent requirements of National Defense have limited the amount of Aluminum available to us for seals. Temporarily, some types of Alseco Seals are being supplied in metals other than Aluminum.

However, Aluminum production capacity is being rapidly expanded. When the emergency is past, there will be more Aluminum available for seals than ever before.

Trade Mark Reg. ALSECO SEALS U. S. Pat. Off.

Beauty for AMERICAN Girlhood

What impression is created by your dealer displays? Do consumers glance at them and say to themselves: "That's a beautiful picture" and let it go at that? Or do they say: "It *must* be a fine product—I want some"—and open their purses?

OBERLY & NEWELL recognize the essential value of beauty in store displays, but they go a step further in designing advertising material for their clients. They strive to incorporate novel utility features that make it easy for the consumer to buy.

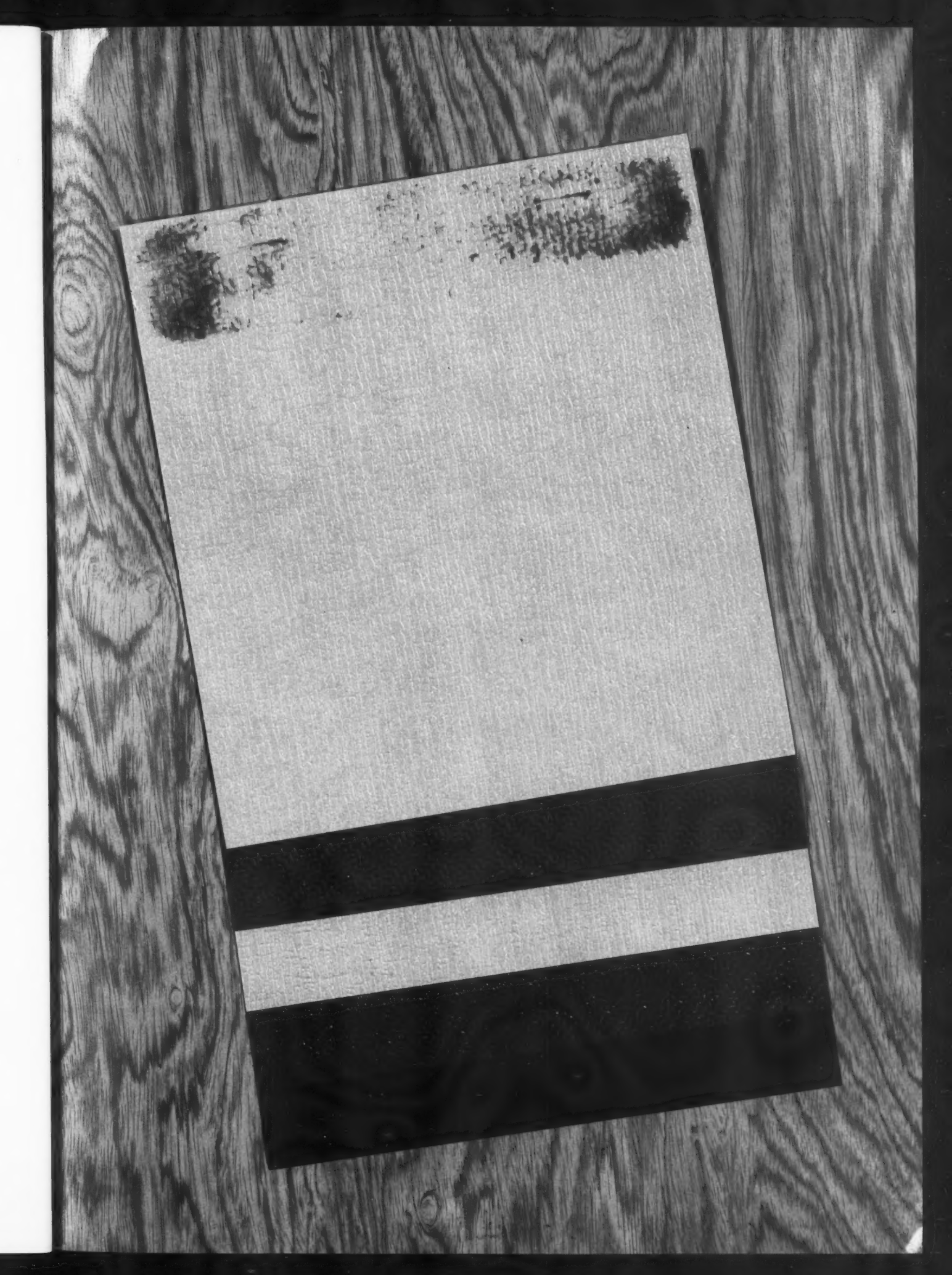
When your displays embody both beauty and utility, as does the Pond's display shown here, you have scored two solid hits. You please the dealer, whose space is at a premium, and you make your merchandise readily accessible to the shopper.

Let us collaborate with you on your store displays.

Window and Store Displays —the "vital second half of merchandising"

OBERLY & NEWELL
Lithograph Corporation

545 Pearl Street New York, N. Y.
Worth 2-3735



HERE ARE TWO NEW IDEAS IN BOX COVERINGS

Nashua's

BAMBOO and CHEVRON EMBOSSED PAPERS

The papers swatched on the other side of this page are Nashua's answer to the ever-existent demand for something NEW in package appeal. They are styled to create and intensify the urge to buy.

The attractiveness of these papers will be particularly helpful in the difficult job of launching new products.

The patterns are available in any of our wide range of stock papers. From the top down they are:

No. 1141 GREEN BAMBOO
No. 9280 RED CHEVRON
No. 1146 BUFF BAMBOO
No. 1161 BLUE CHEVRON
No. 5380 BLACK BAMBOO

ALL ARE CARRIED IN STOCK IN BOX WEIGHT

Once more Nashua's creators, chemists and craftsmen have produced a line that will

MAKE PAPER MAKE MONEY FOR YOU!

SEND TODAY FOR COMPLETE SET OF SAMPLES

NASHUA GUMMED AND COATED PAPER COMPANY
DEPT. M-6, NASHUA, NEW HAMPSHIRE

CREATORS · CHEMISTS · CRAFTSMEN
NASHUA
MAKES PAPER MAKE MONEY FOR YOU

Look for the Triangle NASHUA Sign of a Nashua Value

IT'S A GREAT ITEM, DAN, BUT WHAT MATERIALS WILL DISPLAY IT EFFECTIVELY?

BETTER CALL IN ARROW— THEY WORK IN ALL MATERIALS.

Coty's new Tantalus — a counter demonstrator for Coty's "Informal Fragrance". Made of wood, plated wire, and gold stamped acetate.

FOR A DIFFICULT DISPLAY PROBLEM RELY ON *ARROW'S* VERSATILITY

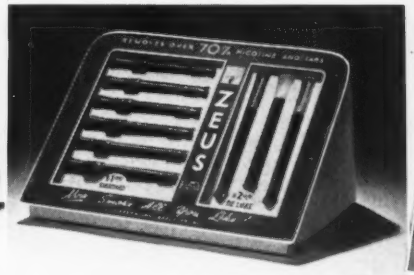
Perhaps your product needs a velvet display box, an enameled one, or maybe one of leatherette? Arrow makes all these types and works in a wide variety of other materials as well.

In merchandise-counter displays you'll find Arrow is versatile, too! For Arrow constructions are available in acetates, wood or glass—in metals, mirrors and all types of plastic ornaments.

Moreover, Arrow has the experience and skill to design exactly the kind of display box or counter display that will *best* merchandise your products.

If that is what you want, call Arrow—today, next week, next month. You'll find our versatility well worth while at *any* time.

The modern trend in an agency sign with the trade name in simulated sand blast effect on the mirror. Transparent plastic legs add to the appearance.



A display for the famous Zeus cigarette holders—reserve stock compartment in rear. A compact pleasing display. Silk screened mirror panel gives added distinction.

Machand's self service refillable merchandise counter display — 9 color samples of actual hair lend facility to customer's selection. Finished in natural wood.

EVERY STEP FROM DESIGN TO FINISHED PRODUCT

ARROW Manufacturing Co. Inc.

15th and HUDSON STREETS
HOBOKEN, NEW JERSEY

BOXES AND DISPLAYS . . . IN METAL . . . CARDBOARD . . . WOOD . . . GLASS . . . FABRICS . . . LEATHER . . . IMITATION LEATHER

Does your dog food SPEAK *for itself?*

Glass-packed dog food SHOWS its quality, SELLS at first glance

DOG OWNERS can't pass by glass-packed dog food. They are stopped by its attractive color and texture, and that interested inspection convinces them of its quality, goes far to make the sale automatic. That's why dog food packers who have changed to glass are so enthusiastic . . . for glass puts them on the retailer's list of display favorites, on the shopping lists of a daily increasing army of dog owners. More . . . it puts new life and vitality into the entire mechandising program. Glass packing costs no more — and the change is easy and inexpensive. Anchor can supply everything — containers, closures, sealing equipment and retort controls. Take advantage of our offer★ . . . see the remarkable improvement in appearance and selling appeal made by packing your dog food in an Anchor Hocking glass container, sealed with an Anchor Cap.

★ TAKE ADVANTAGE OF THIS OFFER

Send us two of your present packages, and we'll repack your dog food in appropriate glass containers and return to you with all cost figures and full information. No cost or obligation—and you'll see at a glance what a sales plus you have when your dog food is packed in an Anchor Hocking glass package.

THIS DOG FOOD SPEAKS FOR ITSELF!

This new package adopted by Hunter Packing Co., East St. Louis, Ill. employs the No. 2515 Anchor Hocking Tumbler with Anchor T Cap. This progressive merchandising step has had a remarkable effect on Hunter sales and distribution. Now the day is arriving when dog food in anything but glass must take a back seat!

AN ANCHOR HOCKING GLASS PACKAGE GIVES YOUR DOG FOOD THESE TEN PLUS FEATURES

It costs you no more to pack your dog food in glass than in other, less desirable containers.

Your salesmen will be roused to a new interest by the dramatic new package, will tell and SELL the story with enthusiasm.

New merchandising and advertising opportunities immediately follow the adoption of glass—reaching all the way from jobber to consumer.

Glass opens up an entire new field for display. Dealers cooperate with enthusiasm, in the certainty of quicker turnover and more profits.

Customers are attracted by the gleam and sparkle of glass—and the colors of contents.

Customers can see the quality, texture and composition of the food at a glance, and right there is where you win the decision.

Contents of a glass container are easily removed without waste.

The food can be divided into even portions, accurately and without guesswork, important where dogs are fed by ration.

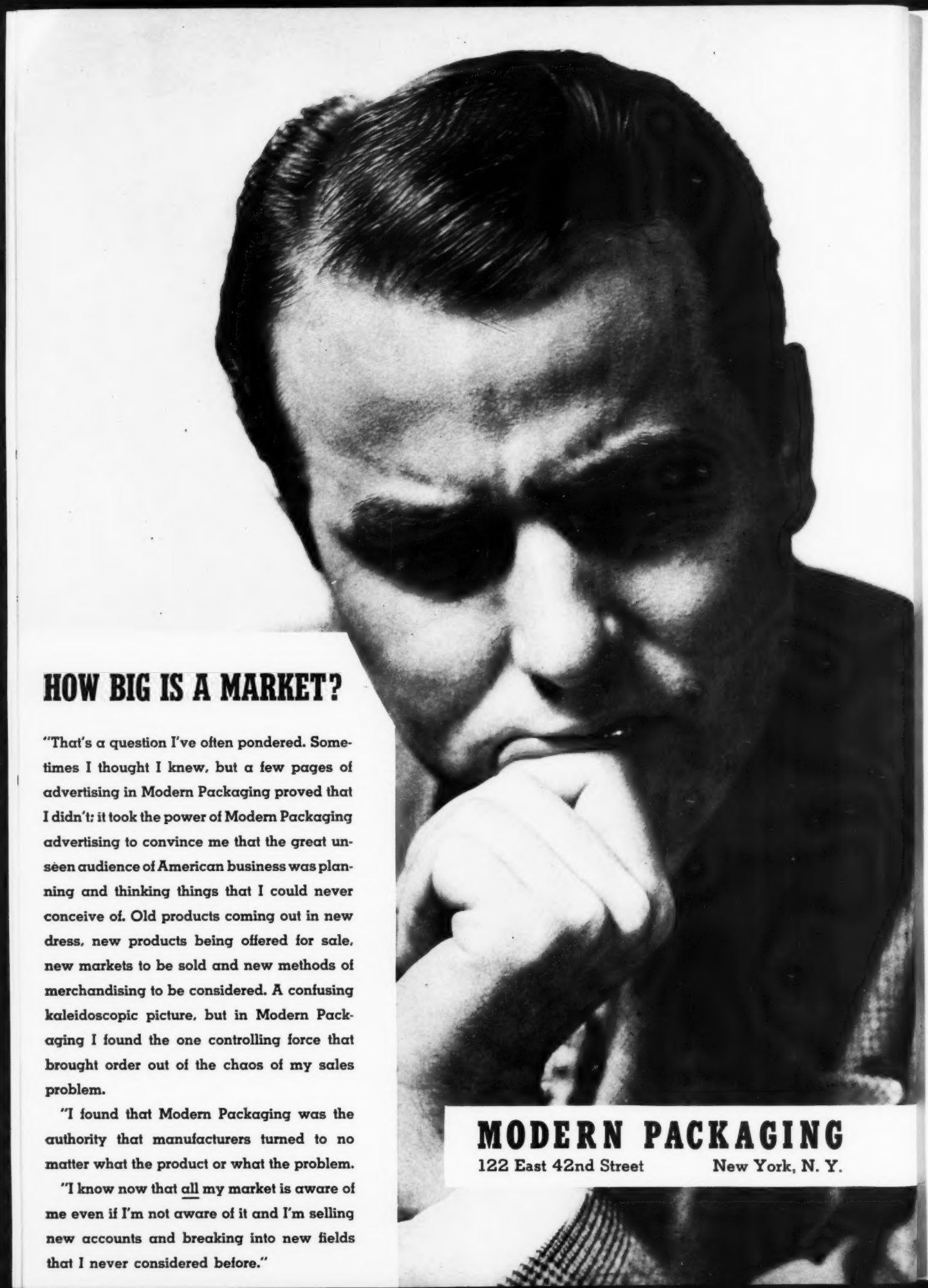
Storage of unused portion is safe and sanitary in glass, and contents are protected against drying out.

Glass packing increases sales, increases profits, gains for your product a position of leadership in a profitable, fast growing market.

ANCHOR HOCKING GLASS CAPS

ANCHOR HOCKING GLASS CORPORATION

LANCASTER, OHIO



HOW BIG IS A MARKET?

"That's a question I've often pondered. Sometimes I thought I knew, but a few pages of advertising in Modern Packaging proved that I didn't; it took the power of Modern Packaging advertising to convince me that the great unseen audience of American business was planning and thinking things that I could never conceive of. Old products coming out in new dress, new products being offered for sale, new markets to be sold and new methods of merchandising to be considered. A confusing kaleidoscopic picture, but in Modern Packaging I found the one controlling force that brought order out of the chaos of my sales problem.

"I found that Modern Packaging was the authority that manufacturers turned to no matter what the product or what the problem.

"I know now that all my market is aware of me even if I'm not aware of it and I'm selling new accounts and breaking into new fields that I never considered before."

MODERN PACKAGING

122 East 42nd Street New York, N. Y.

"YOU DON'T NEED SULPHUR AND MOLASSES— YOU NEED A NEW HAT!"

CARTOON COURTESY R. H. MACY & CO., INC.

THERE'S nothing like a new hat to pick up a woman's spirits. And there's nothing like one of these "Cel-O-Seal" toppers to put new pep into a package.

If your product needs a sales "tonic," prescribe a "Cel-O-Seal" cellulose band. It'll add color. Look nice. Cost you very little—yet make a big difference in the appearance and sales-appeal of your product. We'll be glad to submit special designs.

P. S. "Cel-O-Seal" bands are more than "package pepper-uppers." They do other things, too—such as help protect the contents against contamination, of special interest to food, drug and distilled liquor packers. Illustrated are a few of the many Macy products sealed with "Cel-O-Seal" bands.

DU PONT

CEL-O-SEAL
TRADE MARK
BANDS

Sold by

E. I. DU PONT DE NEMOURS & CO. (INC.)
"CEL-O-SEAL" SECTION
Empire State Building, N. Y. C.

ARMSTRONG CORK COMPANY
GLASS & CLOSURE DIV., Lancaster, Pa.

I. F. SCHNIER COMPANY
683-89 Bryant Street, San Francisco, Cal.

The SPOT where all your Hopes

live . . . or die

Your product on dealer's shelves is *not* sold. It's waiting . . . waiting to be bought.

Today there is a way to get it off that "waiting-spot" quickly. Today, whether you sell apple butter, beets, cherries, tobacco, shoe polish or quick-drying enamel, you can have a sparkling Duraglas container for it. Then your product will flag the eye, coax the hand, speak up for itself—because a look tells more than a label.

Don't let previous thinking about glass containers hold you back. Duraglas containers are different. The only trade-marked glass containers ever advertised in consumer magazines.

Here's What You Get in Duraglas Containers

The new revolutionary glassmaking technique used in producing Duraglas containers results in greater durability and strength. It's strength that eliminates excess container-weight. More. Duraglas, while lifting glass containers out of the luxury class, asks no price premium.

For one-trip containers, the lower weight and strength of Duraglas means lower handling and shipping costs. And Duraglas returnable containers, for milk, beverages, beer, etc., deliver longer life and lower trip costs.

Ask an O-I representative about our *Complete Salespackaging Service*. It includes Duraglas containers, metal or Lustrseal molded caps and shipping cartons. Owens-Illinois Glass Co., Toledo.

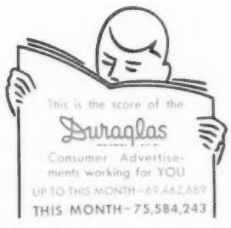
Duraglas

TRADE MARK REG. U. S. PAT. OFF.

Exclusive Development of

OWENS-ILLINOIS

GLASS COMPANY



BRUTAL will be the word for 1942. Brutal, forced changes in every category of our national life. Brutal material replacements and brutal dislocations.

The only weapon we have against brute change is —brute FACT.

Packagers must have the facts on materials and replacements, on machinery and repairs, on hand labor and time studies, on weights and strengths, on priority and availability.

They must have all these facts in one place. They must have them in handy, convenient, easy reference form. They must have them about every package type, material, part and equipment.

In short, they must have the *new* 1942 PACKAGING CATALOG.

For this book will have everything that packagers want to know. It will be even more than before the *workbook* of the packaging field.

It will be completely re-written, from beginning to end, with these thoughts in mind. It will contain a wealth of charts and statistical information.

Received and *consulted* by the top executives in the largest packaging firms, it will point the messages of all important suppliers to the men who must be made aware of what suppliers have to sell—and what *may not be presently for sale.*

SEND FOR FREE HANDBOOK

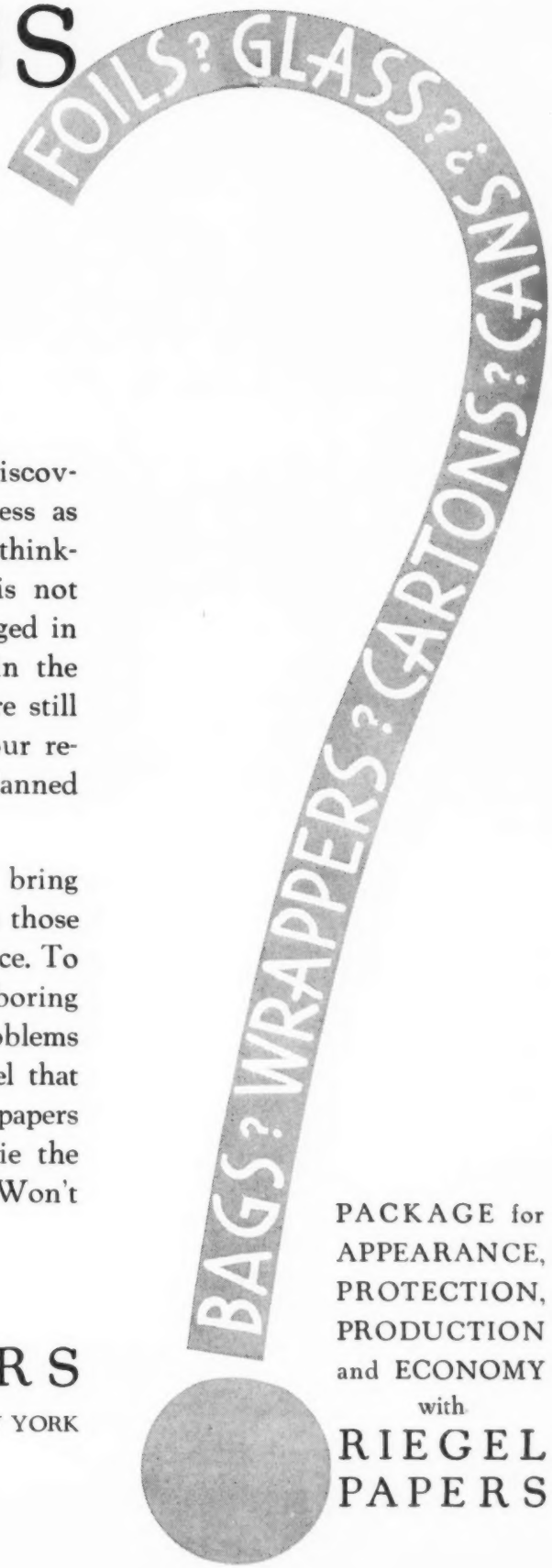
Modern Packaging's Research Staff has prepared a handbook outlining the contents of the NEW Catalog to enable suppliers to attune their messages to the new needs of 1942 packagers. A copy may be had without charge. A note on your letterhead will bring one free.

New! 1942

PACKAGING CATALOG

122 East 42 Street • • New York City

BUSINESS AS USUAL



NO! Many manufacturers have discovered that the slogan, "Business as Usual," contains more wishful thinking than fact. Unfortunately, business is not "as usual." For some it has already changed in kaleidoscopic fashion, but most of us in the packaging field—users and suppliers—are still able to make necessary adjustments of our requirements in a gradual and carefully planned manner.

We feel these changes will frequently bring better and more economical packaging to those who have prepared themselves in advance. To this end our technicians have been laboring long and hard. They have solved many problems—many remain to be solved—but we feel that somewhere in our line of 230 special papers and in our most recent research may lie the solution to your changing requirements. Won't you write us today?

RIEGEL PAPERS

RIEGEL PAPER CORP., 342 MADISON AVE., NEW YORK

PACKAGE for APPEARANCE, PROTECTION, PRODUCTION and ECONOMY with RIEGEL PAPERS

"This little pocket stapler gave me 3 BIG IDEAS on revolutionizing my carding method"

It was a Bostitch B-8 stapler that started me thinking. If a little paper-fastener can be so efficient, why couldn't the same stapling principle be used in carding our product, too!

"BOSTITCHING IS SECURE" I thought to myself. There'll be much less danger of our product getting torn loose by rough handling, or pilfered off the counter.

"BOSTITCHING IS NEAT" was my second thought. Staples will interfere less with the printed message. In addition, they're more adaptable to special jobs like 3-dimensional displays.

"BOSTITCHING IS FAST AND ECONOMICAL" I discovered when I investigated Bostitch stapling machines. For me, at least, it is much more economical than glue, tape, thread, or any other fastening method.

MAY HAVE AN IDEA FOR YOU. *Bostitching is using the right stapling, stitching or tacking machine and the exact size and kind of staple to get the most efficient fastening results. Our free folder may start you on a cost-saving short-cut to carding efficiency. Don't miss it—write today! Bostitch, 56 Division Street, East Greenwich, R. I., Bostitch-Canada, Ltd., Montreal.*

SEND FOR FREE FOLDER "BOSTITCH FASTENS IT BETTER WITH WIRE" . . . Write Today!

BOSTITCH *fastens it better with wire—*

GIVES YOU ALL THREE IN ONE FASTENING METHOD

1. SALES APPEAL
2. PROTECTION
3. ECONOMY

Faulty Shipments Analyzed

What are the most common causes of the failure of shipping containers in transit? The Freight Container Bureau of the Carriers has the answer. The Bureau's report on solid fibre and corrugated containers, which represent at least half of all containers in service, names as the most common causes of failure: "Poor and improper closing of flaps; adhesives not properly applied; using gummed tape alone; slack packing; lack of inside packing material."

Proper Stapling Machines Eliminate 3 out of 5 Shipping Troubles

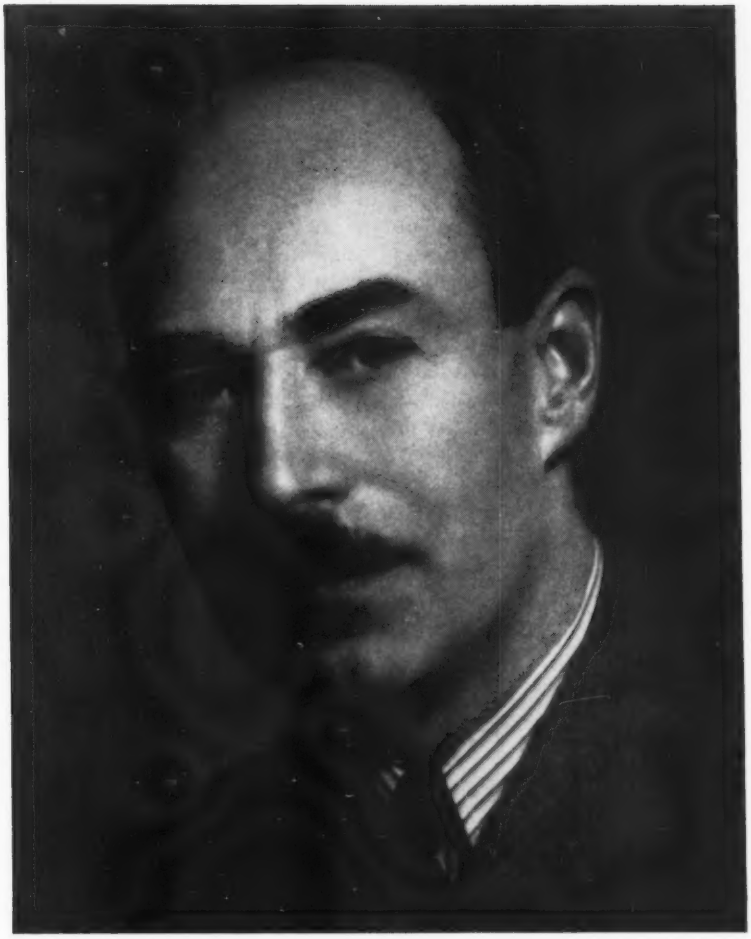
Obviously the first three of these common faults are eliminated by *sealing with steel*, using stapling machines especially designed for the shipping room. Shippers also find that this quicker method saves money; requires no time or floor space waiting for adhesives to dry; improves appearance and discourages pilfering, as well as giving greater assurance of delivery in good condition.

An unusual example of versatility in the shipping room: this adaptation of a Bostitch Stapler, suspended from overhead conveyor, staples cardboard sealing strips over bag tops, after hot asphalt has been poured in.

Nearly 800 Models . . . 18 Engineers Help Avoid Shipping Delays

18 research engineers and over 300 Bostitch representatives in more than 100 U. S. and Canadian cities, specializing exclusively on fastening problems, will help you adapt these Bostitch machines to your needs. Nearly 800 easy-to-operate models allow you to select the right machine and to progress economically from simplest to largest because of liberal trade-in, budget and rental policies. For further information, write Bostitch, 56 Division St., East Greenwich, R. I.

Advertisement



D. E. A. Charlton

March 25, 1885 — *April 29, 1941*

The passing of Ted, as we who knew him best called him, leaves us with mingled emotions—with a profound sense of sorrow. We can't think of Ted and death together. He loved life too much. He has walked beyond our vision—that is all.

He was our business associate and intimate friend. We knew him as a sower of seeds of good cheer and of humor and optimism. He always saw the silver lining—rarely the cloud. His natural buoyancy—exuberance—piloted him through life whether he was on the crest or in the trough of the wave. His understanding and consideration for others and his ability to dramatize his own light-hearted philosophy was an antidote for any form of depression.

It is hard to say good-by to Ted. We shall go on listening to his steps—to the cheery sound of his voice—remembering always the incomparable raconteur, the gallant gentleman. We shall always think of him in terms of Lord Byron who wrote:

> "Farewell! if ever fondest prayer
> For others weal avail'd on high
> Mine will not all be lost in air,
> For waft thy name beyond the sky."

Machinery: *Supply and Demand*

A SYMPOSIUM

Today, as never before in our history, our national security is dependent on machines. Without machines—and the industries that produce and utilize them—the airplanes, tanks, trucks, ships, guns and other material so vital in modern warfare could not be supplied to our armed forces. Our very safety depends in large measure, therefore, on the efficiency of American industry.

In the present program of re-arming, we have already skipped from theoretical sacrifice into actual shortage. Our actions now must be based on cold, hard facts rather than eloquent words and seductive fantasies. Speaking for the packagers, Modern Packaging has asked the leading machinery and production men the questions that have been bothering all.

Some of the questions are:

1. Delivery of new packaging machinery.
2. Securing repair or replacement parts.
3. Re-design or substitution of materials on new machinery and equipment due to shortages of certain metals.
4. Manual or semi-automatic operation due to inability to get new machinery and equipment.

The fact that all industry needs new equipment to modernize production set-ups antiquated by long years of depression and that materials and equipment are difficult to obtain, in many cases, and becoming scarcer, while, conversely, the demand is rising have created a critical situation in packaging progress. The viewpoint of the machinery manufacturer is ably expressed by Roger L. Putnam and that of the machinery user by Wm. M. Bristol, Jr.

Packaging Already Affected

Letters received from a host of packing machinery builders and users indicate that the defense program has already affected the production of package machinery and replacement parts and that the dislocations become more serious with each day. Some manufacturers have not yet been recipients of defense orders because highly specialized equipment used for packaging machinery does not lend itself to mass production of armaments. But as sub-contracting on defense orders extends more and more of the capacity of package machinery manufacturers will be absorbed.

A viewpoint which encompasses that of the machinery manufacturer as well as of the user is expressed in the following confidential communication. This unique statement keynotes the feelings of both parties to the machinery problem.

"Although we are members of the Packaging Institute, we are in a 'rather unique position' as we not only operate a large packaging department in which unusual packages for tablets, pills, capsules and cream are put up for the account of our customers, but we also operate an extensive machine shop in which we build all our own equipment, as well as special equipment which is for sale on the general market.

"In view of this, our problem and position is quite different from those of most of the members of the Institute who are dependent on outside sources for equipment and who standardize particular products, whereas we produce a vast variety of packages of numerous products for customers throughout the entire drug industry.

"We anticipated the present emergency some time ago and built extensive equipment for our own requirements in our packaging division so that we have ample productive facilities to take care of a large increase in business in this department. We also bought the necessary steel, brass castings, motors and the like to take care of the manufacture of replacement parts and spare parts as we estimated that they would be required in the course of the next two years.

"Having accomplished this, the productive facilities of our machine division are now at the disposal of the Government to the extent of about 70 per cent of our capacity. This situation, we expect will continue through the emergency and in fact, we would not be surprised if the Government required the use of all of our productive capacity except for small work for the maintenance of our equipment.

"As far as the labor situation is concerned, we would say that we have always considered our employees as much a part of this business as the executives and the stockholders and arrangements for progressive increases in wages have been made so that the skill of the individual worker and the cost of living will determine their income during the emergency.

"It is absolutely impossible to hire skilled toolmakers and machinists so we have arrived at a policy of producing just as much accurate work as our regular machinists who have been with us for a number of years can accomplish during a 54-hour week and the only additions to our staff have been apprentices and learners to assist the skilled machinists in crude work.

"We arrived at a 54-hour week on a basis of 40 hours at straight time and 14 hours at time and a half, as the longest time that a good machinist can work without impairing his health and necessitating loss of working hours."

Further statements, from prominent machine manufacturers and users may be found on page 55.

For machinery manufacturers

by ROGER L. PUTNAM*

War today is a war of machines. We read this constantly, we hear it spoken and yet, perhaps, we don't realize just what effect this true statement has on our own businesses. When we think of a war of machines, we think of tanks, of airplanes, of ships. But do we think of the machine tools that make the parts for these airplanes and tanks and ships? And do we think of the high-speed automatic machines that make the ammunition that is going to be fired from these tanks and planes and ships?

A modern ammunition plant is very like a modern packaging plant. It requires the same sort of automatic machinery, except the handling must be even more careful. An over-load of high explosives in ammunition is a great deal more serious proposition than an overweight package and some wasted material.

Defense of our country is dependent upon an adequate supply of all these different kinds of machines *now*. Defense means we must have the machines this year—not next year. By next year, there may be nothing to defend.

Perhaps in this the machinery issue of Modern Packaging, these seemingly warlike statements have no place, but really they do have a vital effect upon the makers and users of packaging machinery. The makers of machinery are all of them patriotic individuals and companies. They are all of them anxious to serve their country in any way that they can, and they are being called on in one way or another to use their equipment, their skill and their special knowledge, to build parts or machines, to help this gigantic defense program. Those who can have been asked to expand their organizations and, after they have already agreed to build more than they thought saw possible, have been told again to double the order.

All these machinery-makers are equally anxious to take care of their good customers. They don't want to say, "No," at any time to those people who have helped them to build up their businesses. They realize that they are going to want all of their customers again, when the emergency is over. If they are late on deliveries, however, if they make longer promises than seems reasonable—remember that they are doing their part for national defense.

There isn't one of us who doesn't put our country first in all the things that we want to have done, but let me, for a moment, suggest that we forget the patriotic side of this problem and look at it simply from the business point of view. If the machinery manufacturer with whom you want to do business can't make delivery as quickly as you want because he is busy on war work, don't blame him, but realize that, if he were not busy on war work, priorities would probably prevent his getting the aluminum, the stainless steel and many other materials that are needed for the machines you want. It is because he is doing his part for national defense that he is also able to give some service to the peace-time users of machinery.

The manufacturer of packaging machinery today is in a difficult position and he needs the help of all his customers. He wants to keep their good-will; he wants to give them all the service that lies within his power. He is going to need their business badly some day. His customers can help him most right now by not ganging up on him. Don't wait until the last minute and expect him to make spot deliveries. Anticipate your requirements well in advance. Be reasonable in your demands. Don't ask him to produce special equipment right now unless it is absolutely essential. You can help the whole national defense picture by using standard equipment if it is humanly possible.

Finally, you can help him in many cases by using, wherever possible, the services of your own skilled operators for installation or repair work. Remember that in the need for national defense skill and knowledge are of great importance. Road-men of machinery manufacturers are the best men that they have. They are the kind that can be training others, so that every day you keep them away from home is an important day lost in the defense activity. The machinery manufacturer's production facilities are full to the limit. He is training more men as fast as he can and he needs the old-timers—not just for production, but for training, for leadership. His machine tools are running 24 hours a day. His whole plant production set-up is geared to go full speed ahead. (*Continued on page 112*)

* President, Package Machinery Co. Mayor, City of Springfield, Mass.

For production managers

by W. M. BRISTOL, JR.*

A few of us remember the hectic conditions and the unforseen problems that confronted production men during the last war, but I am sure to most of us the problems that confront us today are brand new. In fact, I think many of them have to be brand new, for the great mechanization of the packaging industry occurred subsequent to 1918 and not before it. There is no past history or previous experience for guidance during the present emergency. In a sense, we all will have to use the Braille system to find the answers to our problems.

I believe there are a few fundamentals we must not forget. If we use the ingenuity that our industry unquestionably possesses, we ought to be able not only to keep our factories operating, but actually to continue the progress and development that have been going forward these past years.

First, we should realize that to all intents and purposes we are in a war economy. This means the whole country has to accept the premise that the materials and machines for conducting war have priority over everything else. In effect, we must realize immediately that the production of our supplies cannot and will not be maintained at the same rate of delivery as in the past. This calls for patience and careful planning. It seems to me that all of us should try our best to give our suppliers all the advance notice possible of our requirements and, I may add quickly, that they in turn should be honest and candid with us. Without false promises there will be no false premises. I particularly urge that we do not attempt to build up unreasonable inventories—for if we all demand huge increases in supplies for which we have no immediate demand, we all will suffer, to say nothing of inviting governmental control of those supplies with all the accompanying red tape and headaches.

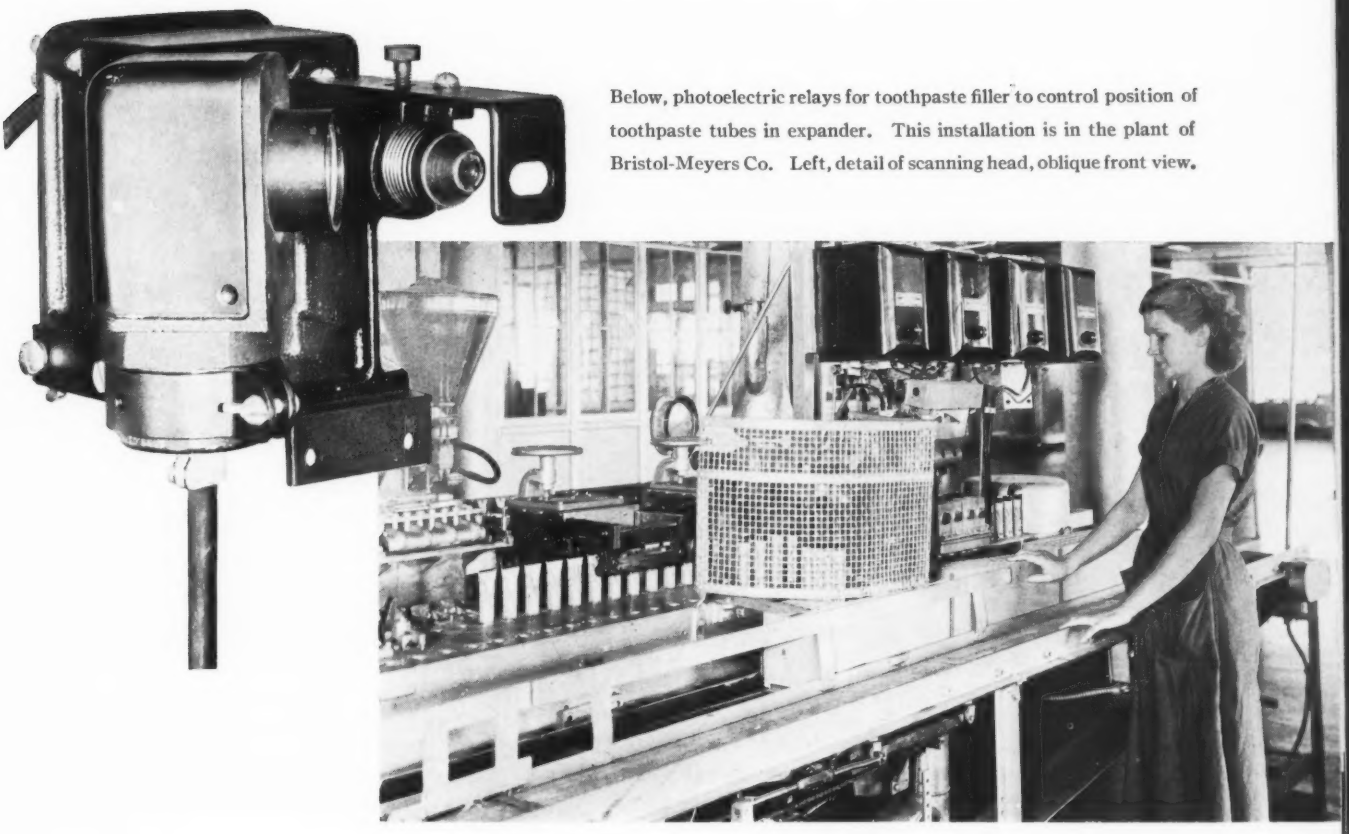
As for our machinery friends—let us keep them in that category. I fully believe that the old adage about necessity and invention is going to be just as true in this emergency as in the past. With the curtailment of heretofore available materials and mechanics—the machinery makers will have to evolve simpler methods of producing the same results. But that won't happen over night—so again I urge patience and understanding. Give them as much advance warning of your requirements as you possibly can and I am sure they will take care of you all right, but don't expect them to do the impossible and don't expect a condition of "business as usual."

As to the problems in our plants, we are confronted with the test of our own ingenuity and ability. We will have to use makeshifts—wood instead of steel—hand operations instead of machines, but these conditions can be met without too much inconvenience and trouble, if we make up our minds to do it! One of the most effective aids will be to put the challenge up to your own employees. Remember they actually know more about their particular job than you do. Try man and machine time charts on them. Try work simplification methods. If you have one, stimulate your suggestion plan. Review your award system to see if it's adequate and equitable. Above all see that your labor-relations policies are sound and right. Although we all are going to have an increasing labor turnover, due either to the draft or the lure of higher wages elsewhere, it has been my experience that if you have been and are fair, your most unskilled employee, like you yourself, hates to make a change if he is happy and satisfied. So make and keep your conditions right and your employees will do their part.

A well-known manufacturer of automatic machinery once made the statement to a group of production men, "You originate the ideas; we patent them and sell them back to you." There is a great deal of truth in that statement. So get busy and make friends with your fellow producers whether competitors or not. Let them visit your plant and you visit theirs. I'll guarantee that if you keep your eyes open, every trip will answer some problem of yours or theirs.

Lastly, and most important, join the Packaging Institute for it has the information you want and is a group whose fundamental principle is cooperation. The membership covers a wide field of variety and type of production in the packaging industry and, therefore, the sum of the Institute's experience is really vast. It's available to you as a member and should prove of inestimable value during this period that now confronts all of us.

* Vice President, Bristol-Myers Co. Past President, Packaging Institute.



Below, photoelectric relays for toothpaste filler to control position of toothpaste tubes in expander. This installation is in the plant of Bristol-Meyers Co. Left, detail of scanning head, oblique front view.

An (electric) eye for results

by W. D. COCKRELL*

The dance of the Employees Benefit Assn. last night was quite a gay affair. Everyone had a good time and stayed very late. Today, however, many of the participants are paying the piper. Footsteps are not so springy and eyes are not so bright. In those departments requiring the most detailed work, where the eye-strain is greatest, the mistakes are beginning to pile up. The tally between the filling and wrapping departments is not as accurate as it was; labels are left off too many packages and on the high-speed packaging machine, the misregister is much worse than usual.

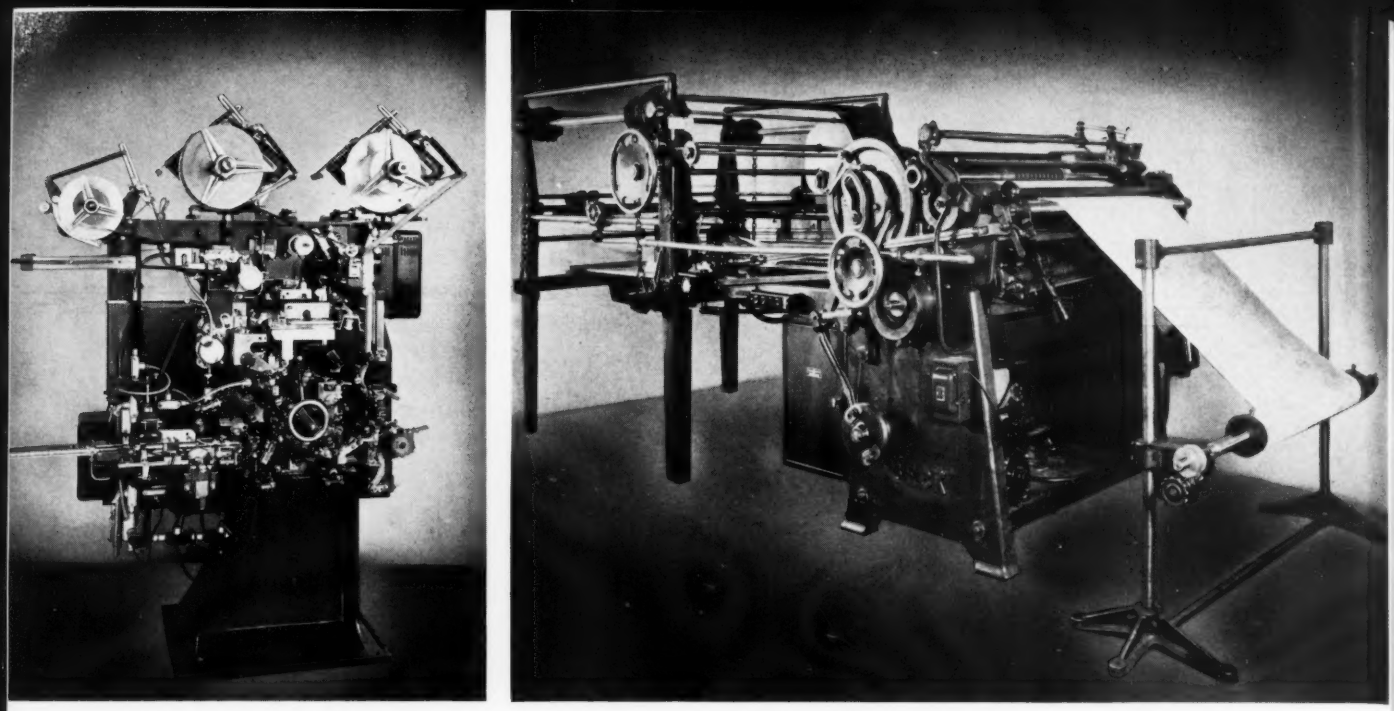
Most plant managements recognize the above as a situation that will exist as long as employees must work on monotonous eye-straining jobs. But some aggressive managers are not satisfied. They remember the days of the old wheelbarrows and hand-trucks and the porters with the strong backs. They contrast that with the modern conveyor system and the fast electric trucks of the present time. What they want, they say, is a helper with a strong and untiring eye. Although many may not know him, there is such a helper available. It is the "electric eye," or photoelectric relay.

The photoelectric relay is just that. It is an electric switch operated by changing the amount of light, or the color of light, received by the phototube or eye. It is a willing and tireless worker. There are a number of sorting and inspection jobs requiring a keen mind and experienced judgment for which the electric eye has not yet been trained, but there are many routine jobs about the plant which it has been doing for some time and doing in a very satisfactory manner.

Let us take the simplest job first. It takes little imagination to see a light beam directed across a conveyor on which articles are moving so that each article will cast a shadow on to the phototube and be counted. Perhaps we appreciate also that this light beam cannot touch, damage or contaminate the article. Even articles considered normally transparent, such as bottles or other glassware, may be counted in this manner by refracting or reflecting the light.

Then take those machines with automatic feeding. How many times have bottles gone down the line with-

* Industrial Engineering Department, General Electric Co.



Left, gum wrapping machine designed for American Chicle Co. Two photoelectric register controls are used: an intermittent feed for the final wrapper and a continuous-feed differential control for the single-stick wrappers. Machine by Package Machinery Co. Right, a sheet cutting machine equipped with sheet piler, automatic lowering table and an Amplidyne electric eye for cutting to printed register. This new-type electric eye is designed for much greater accuracy in "spot sheeting" work, since it makes six checks or corrections for each sheet cut. This equipment has just been completed for a large paper company. A similar installation is being used in a large New England Mill for "spot sheeting" water-marked papers. Machinery by Chas. Beck Machinery Co.

out stoppers, or cans without tops, because the hopper was empty or the chute jammed? By placing the phototube and light beam at the proper point, you may check whether the parts reach the right place at the right time, no matter how light or fragile they are.

The next logical step is to the filling operation itself. Do you fill by weight? Most of the scale manufacturers today incorporate the photoelectric tube in the face of their scale, so that the pointer will touch the light beam at the proper point. This insures an accurate and unvarying quantity. One ingenious scheme causes the flow of material to be slowed down to a dribble when the pointer first cuts off the light beam and then to stop entirely when the light again strikes the phototube. In this way, fast filling accompanies accuracy.

Or suppose you fill by volume? Here again the sanitary and unwearing light beam will permit sustained accuracy. Does your container have a flap that must be folded and inserted properly? A light beam placed at the proper point will inspect this easily.

In a number of ways the electric eye can assist in filling and closing the package. Any ingenious designer may find a hundred more ways in which the phototube may assist up to this point. But there still remains the important job of wrapping and labeling.

The foregoing has been concerned principally with direct cutoff of the light beam. For wrappers and labels, the important factor is the color contrast control of the phototube. As any camera enthusiast knows, the requirements for color photography are much more strict than those for black-and-white photography. In the same manner, the proper operation of the electric eye by color contrast also requires a little more intelligent application. The phototube does not see colors exactly as the human eye does and colors do not look the same by incandescent light as they do by sunlight. The diagrams of curves of two representative phototubes show that one is somewhat color blind to red and the other to blue. One responds very strongly to the infra-red heat rays. This makes it very desirable for operation on an incandescent light which is strong in these rays, but which may give false indication of a color which reflects these rays very strongly.

Another consideration is that of the finish or gloss of the material at which we are looking. Some materials have such a shiny finish that most of the light striking them is reflected from the finish and very little reaches to the color beneath to produce a contrast. This makes the eye work under a terrific handicap.

The greatest contrast and most reliable operation for the electric eye, as well as for the human eye, is that between a dark-hued spot and a white or light-tinted background. By noting the difference in color between the label and background, the phototube can very easily detect missing labels or labels of the wrong color. Or by viewing a certain part of the label, it shows whether the label is applied upside down or out of line.

However, one of the most popular uses of the photoelectric relay in the packaging industry has been that of register control. When a (*Continued on page 101*)

Time and motion procedure

by ERNEST W. FAIR

The door is wide open. Through it you can see more profits, smoother operation of your packaging equipment and more satisfied employees. All are beckoning, but you do not enter. You know that to join this desirable company, you must make a time and motion study of your packaging operations.

"But I can't do it," you apologize. "I don't know how. All the time and motion study material is so complicated. How could I adapt it to my own packaging operations?"

In your mind you see mysterious formulas, mystic charts and hear magic passwords—tiresomely and expensively complicated. Yet beyond this technical mirage, there are ways to make time and motion studies as simply as you can clock turtles passing your front door-step. The results may be applied easily to your business. If such a study is made according to established procedure in a number of successful plants, it will do a great deal more than simply create a set of time standards for work operations.

First essential is to find out the time it takes to make each motion in the packaging operations of your plant. After this is secured, an ideal standard of procedure may be set to allot each operation the proper amount of time. This procedure will accomplish the following factors in the packaging operations: (1) obtain decreased cost in packaging each item by eliminating any existent waste effort, (2) establish physical time standards as a basis for future employee wage scales and help to avoid labor problems, (3) increase the handling capacity of the equipment in the packaging department, (4) speed up deliveries, give better service, reduce warehouse charges on piled up production due to uneven packaging operations, (5) increase inventory of material and supplies so that future purchases may be made more advantageously.

These five results may be expected from the adoption of time standards and the application of the research gleaned along the way.

The time study may be used for making an equipment and personnel check of operations at the same time. The system presented herewith is designed to

1. This simple cross-ruled sheet may be used for a time and motion study of a short packaging operation. Across the top are the steps taken in the operation. The time periods for each step are noted in the squares below. The checker uses a stop-watch to time the operator. **2.** This check sheet shows an actual report, summarizing the operation steps studied by an individual checker in a single operation to which he was assigned. The checker made ten time checks on five steps of the operation and while making these obtained the average times for each step and for the complete operation as noted on the bottom line.

1 **2**

START 10:04

Pick up	Box	Caulk	Pick up	Box	Caulk	Pick up	Box	Caulk
03	15	05	03	13	05	03	13	05
04	13	04	04	13	05	04	13	05
04	14	05	03	14	04	04	13	05
03	13	04	04	13	05	04	14	05
03	12	04	03	13	05	04	13	04
05	13	05	04	16	07	04	12	04
04	13	04	04	14	04	04	14	05
04	14	04	03	14	05	06	13	04
03	13	05	04	13	05	04	15	04
04	13	04	05	15	04			
04	15							
04	13	04			05			
04	14	05	04	13	05			
03	13	05	04	11	04			
04	13	04	04	13	05			
04	15	05	03	14	06			
05	13	05	04	13	05			
04	12	07	03	13	06			
08	15	05	04	13	05			
04	13	05	04	13	04			
03	12	05	04	12	05			
04	13	04	03	14	05			
07	11	06	05	13	04			

STOP 11:21

CHECK SHEET

STUDY NO. 1
SHEET NO. 1

OPERATION NO. 1
TOTAL CHECKS 10
DATE 5-1-41
TIME A.M.

CHECKS	OPERATION STEP NO. 1	2	3	4	5	6	7	8	9	10	TOTAL	REMARKS
1	70	32	41	48	93						284	Rushed; spoiled
2	75	36	40	52	89						292	
3	72	34	45	65	92						308	Perfect
4	65	34	42	60	90						291	
5	77	35	46	49	110						317	Slipped on #5; recovery okeh
6	66	37	44	52	98						297	
7	75	30	49	66	90						308	
8	72	35	45	65	95						312	outside interference on 5
9	68	36	56	58	90						308	
10	72	39	45	58	95						309	
TOTALS	712	348	451	569	942						3026	
AVG.	71	35	45	57	94						302	

CHECKER'S COMMENT:
Averages close to ideal; suggest posting rule against outside interference as noted in check #8 above. Machine okeh. Operator okeh.

ABOVE TIMES FIG. IN Seconds

Hopkins
CHECKER

STUDY NO. 1 — NO. SHEETS 6 — NO. OP'RATIONS — DATE 5-1-41 — TIME A.M.

SUMMARY SHEET

TIME AND MOTION STUDY

Black-Jones Company

DEPT. Pkg. — OPERATION #3 — MACHINE Jones — PAY BASIS Salary — TIME BASIS IN Seconds

OPERATION NO.	TOTAL CHECKS	TOTAL TIME	AV TIME	REG. STANDARD	CHECKER	COMMENT
1	10	6557	656	660	Hopkins	None
2	10	1870	187	190	Myers	Two final operations endangers product
3	10	5972	597	560	Lee	Operator needs instruction
4	10	9356	935	935	Lee	Machine need adjustment
5	10	3750	375	380	Sayers	None
6	10	3026	302	310	Hopkins	Check machine
TOTALS			3047	3025		

GENERAL COMMENT:

Suggest time standard 5 min. 25 sec. on this series operations. If instructions above followed below time can be cut to 4 minutes with present operator who is very efficient on 1, 4, 5, 6. Have operator at #2 slow down physical effort and advise more instruction for operator at step #3.

Davis

IN CHARGE

3. The summary sheet contains all the information gathered on the check sheet shown in Fig. 1 and 2. The summary sheet must list the essential information concerning the study and is nothing more than a statistical compilation of the separate check sheets used in a particular time and motion study. The totals and averages posted on the summary sheet serve to supply data which are reported on a recommendation sheet shown in Fig. 4.

accomplish that purpose. If operated by the proper individuals, it can reveal any slow-ups in mechanical or human operations in the packaging division. The entire cost of gathering all of this information is so small that it hardly needs be given consideration. The actual study recommended may be made by any one in the firm's office who has some knowledge of packaging operations.

It is advisable either to have two individuals do such checking or place it in the hands of someone in the plant thoroughly conversant with the mechanical and production details, if secondary benefit is to be gained from the study. The person chosen to conduct the survey and the checkers who make the tabulations should have also a working knowledge of the equipment. Their ability to observe as well as to tabulate is of paramount importance.

No complicated system of records is needed for making this time and motion study. In Fig. 1 the sheet used by the checker is shown. Upon it are checks made in an actual short packaging operation. This simple cross-ruled sheet and a stop-watch are all the checker needs to perform his task. Across the top are the steps taken in the operation. The time periods for each step are noted in the squares below. It is advisable to leave sufficient space for comment at the end of each line. This gives the observer an opportunity to note changes of procedure which may greatly affect the time required. These changes will not show up in the time figures and yet they may be too important for the checker to trust to his memory.

When this check sheet has been completed, tabulated and averaged on a report check sheet (Fig. 2) the interpretation of each line and the notes made by the checker furnish the necessary information for completing that one motion. Fig. 2 shows an actual report, summarizing the operation steps studied by the individual checker in the one operation to which he was assigned. He made ten time checks on the five steps of this operation and while making these obtained the average times for each step and for the complete operation as noted on the bottom line. However, on this one particular check, it was found that outside interference of the operator (by another operator) as noted in the checker's remarks, caused a serious time loss on one check. Later when this report was observed in the completed analysis of the department, it was found that this interference was causing a loss of 10 per cent of the efficiency of the entire department.

A glance at the summary sheet, shown in Fig. 3, and the recommendations, shown in Fig. 4, reveal how this brief note of the checker was carried through the report and embodied in the final recommendations of the man in charge of the study.

In the average packaging division operations, one man can take this report, but where large quantity operation is being used, the operations should be subdivided so that one operator does only a restricted number of motions. Any study containing less than ten elements of operation can be made by a single individual on a small check sheet, such as that shown in Fig. 1 or can be made directly on to the report sheet shown in Fig. 2, where only a limited number of checks may be desired. Where no more than ten checks of an operation are desired, it is advisable, to save time and effort, to use the report sheet as shown in Fig. 2, but where a large number of checks are sought, a blank such as that shown in Fig. 1 (which can later be summarized) will prove most adaptable.

On the back of this sheet, it is generally advisable to show a full explanation of each of the operation steps referred to on the front, as well as such information as the name and type of machine used, the operator, etc. Then this information will be at hand for study by executives at a later time. Every precaution should be taken to record all the factors and conditions which seem to have any bearing upon the times observed for this future reference..

The time study must be an instantaneous statement of a speed that may be changing sharply, but is most

certainly changing continuously as human effort is seldom expended with the same clock-like precision as mechanical effort. The accuracy of the rating is improved when the operator of the machine gives a good performance. Speed is the only criterion that should be considered in the rating, because all other factors have to do with skill and effectiveness.

Too much emphasis cannot be placed on the necessity of a complete record of the conditions existing at the time of the study, either directly on the check sheet or on its back after the study has been completed.

Whether to make such a study with or without the cooperation of the operators who are to be checked is debatable and the decision for best procedure must be considered carefully. Walking abruptly into the packaging department to make this study may be a good way to invite trouble. In certain situations, it may be far wiser to sell the foreman and operators themselves on the idea before the first step is even attempted. This may be done (1) by explaining the possibility of increased wages or bonus payments if the studies reveal more profitable methods of procedure, (2) by stirring the spirit of rivalry between different groups within the department, (3) by an efficiency contest promoted within the department to spur each individual employee into cooperation more readily.

Also times of the different operations should be taken during normal procedure only. No time standard will be accurate when conditions are abnormal. There are situations, however, where better results may be obtained by making the check when the exact checking period is not known to the operators. In such instances, it has been found best to advise employees that the check is going to be made during a certain week and ask their cooperation in operation at the peak of their skill during that week, but not to specify the exact time or date when the check is to be made.

Whether to take the check in the morning or afternoon period is also of importance. Where packaging operations are done at high speed, it may be advisable to place a check on both periods, because there may be differentiation of efficiency between morning and afternoon periods.

Figure 5 is a chart showing the efficiency of employees during morning and afternoon operations. It has been compiled from more than a score of observations and checks. On the average, it demonstrates that greatest efficiency may be expected during morning operation. Consequently, if a check is to be made during afternoons allowance should be made for the differences revealed by the two lines shown on this graph.

As stated before, such a sheet as shown in Fig. 1 may be used for the actual check or the check may be made upon a sheet outlined as in Fig. 2. The latter may serve as a report to be attached to the main summary sheet shown in Fig. 3. If the operation is simple, the first step may be omitted.

On the check sheet, Fig. 2, the operation number, total checks, date and time should all be noted. The first column shows the number of checks in consecutive order. Opposite this vertical row of figures are the operation steps with the time notation for each step noted for each check along that line at the end of which the total figure appears. Remarks regarding procedure of that operation may be noted in the final space. For example in Fig. 2, the checker has noted that on the first check the operator rushed operation step No. 5. As a result, he ruined the package. Excessive time in check No. 5 is accounted for by a slip and note made of satisfactory recovery. On No. 8 the checkers observed that outside interference of operators' movements occurred in the department. He calls further attention to this at the bottom of the page. The totals and averages are used for posting on the summary sheet, Fig. 3, from which the specific recommendations for improvement, Fig. 4, and the suggested time standards, Fig. 6, have been made. These are all shown in a

4. Specific recommendations for improvement are noted on the time and motion study recommendations sheet. Note the break-down into three classifications: equipment, personnel and procedure. The layout of the sheet is obvious as are all notations thereon. The recommendations are based on the data secured in the previous checks and includes the checker's interpretations of the reports received from checkers as well as any personal observation he has made during the taking of the study.

TIME AND MOTION STUDY RECOMMENDATIONS

FOR Black-Jones Co. Chicago Ills.

DATE MADE 5-1-41 DEPT. Pkg NO. STUDIES 1 NO. OPERATIONS 6

EQUIPMENT:—

Practically all equipment involved in this check of packaging operations is in good condition except that involved in operation number four which is badly out of adjustment. Time could be improved considerably by proper adjustment on this machine. Also in number two transfer arm is out of time and is apt to cause package damage at any time. Suggest machine on number six be checked also as believe it is not performing at top speed. In my judgement none of the equipment needs replacement but greater responsibility to report need of adjustment or repair should be placed upon the operator of each machine.

PERSONNEL:—

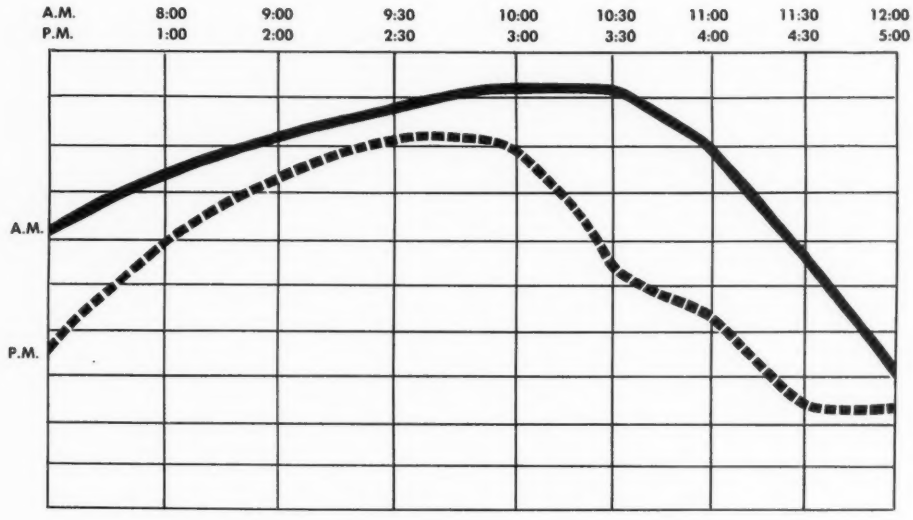
Entire personnel satisfactory except number three who can use a great deal more instruction in method of handling her machine. Believe worker satisfactory but has been put on machine without proper training. As may be noted on individual check sheets a good deal of time (and some spoilage) lost due to interference of employees by other employees. Suggest more rigid enforcement of "no conversation" rules or institution of five minute rest period every two hours in which employees can "blow off steam". If no conversation rule enforced production can be speeded up all through these operations at least 25 percent and spoilages reduced to a very satisfactory point.

PROCEDURE:—

Routine of operation satisfactory. No recommendations except impressing on foreman in charge these operations that all company rules must be enforced.

Cannot too strongly urge employees be taught more about the machines they are being operated and how to catch warning signs of "out of adjustment" danger. From conversations after studies made checkers found operators had no knowledge whatever of how machines work and principles of operation. Am certain the firm will be more than pleased with the results if some education of machine operators along this line immediately instituted.

Hopkins
IN CHARGE



5. This chart shows the efficiency of employees during morning and afternoon operations. It was compiled from more than a score of observations and checks. The chart demonstrates that greatest efficiency may be expected during morning operations. If a time and motion check is to be made during the afternoon, allowance should be made for the differences revealed by the two lines shown on this graph.

specific check to show their relationship between one another. The company name is fictional, of course, but the facts and figures are taken from an actual time and motion study.

The summary sheet must list the essential information concerning the study and is nothing more than a statistical compilation of the six separate check sheets in this particular study. The layout of the sheet is obvious as are all notations thereon. Under the column "recommended standards" are noted the suggestions of the official who has been in charge of the survey. The recommendations are based on the actual averages secured in the check and his interpretation of the reports received from checkers as well as any personal observations he may have made during the taking of the time study.

These recommendations need not be followed in posting standards, i. e., time for time. The official in charge of packaging in the plant, because of his knowledge of equipment, employees and general operating conditions, should be more able to establish the standards to be followed. It will be noted in Fig. 6 how, in this particular case, the reports of the study have been used in establishing this particular official's standards.

Note that he has taken the averages ascertained by the survey, the recommendations of the checker, methods of wage payment and other factors into consideration in making his list of time standards to be followed in the department thereafter.

In the summary, the individual in charge of the survey noted that the average time compilation on the complete packaging operation in this instance was 5 minutes and 25 seconds, but he felt that with proper readjustment of machinery, replacement, etc., this could be reduced to as little as 4 minutes.

After thorough study, the official making the standards to be followed decided that the operation could be done satisfactorily in 4 minutes and 25 seconds after further instruction of operators and maintenance work on equipment had been done.

He has, therefore, recommended a departmental bonus for production beyond this standard. In this instance, the operation involved complete packaging to the point of case unit from individual unlabeled and unpacked containers. He has figured that an improvement in output of the department of approximately 25 per cent should merit bonus payment to the operators therein. It is most reasonable to assume that this would be a good investment as far as plant management is concerned.

The application of standards is the most important phase of the whole procedure, for if it cannot be worked satisfactorily, that phase of time study has been wasted.

Remember it is human nature to oppose a change. The greatest difficulty will arise because some operators cannot meet the standards until they have altered old habits of routing and perfected the best methods introduced with the standards. This naturally will require a period of educational work by the foreman in charge of the department. A good many questions, spoken or unspoken, will arise and they should be answered if the standards are to begin benefiting the plant at the earliest possible moment.

Operators should have these facts impressed upon

them either verbally or by way of a printed message: (1) That the studies have been made under actual working conditions as they existed in the packaging department. (2) That the tables of standards are for normal operation and normal performance—not for a "superman." (3) That the standards cover the entire department and all are related each to the other; that there is a responsibility as far as one's own post is concerned and to aid the remainder of the set-up in maintaining its own standard. (4) That the entire plan is designed solely to secure the maximum production from the department's equipment and enable that equipment to earn a bigger profit for the management and a larger wage for its operator. Stress upon the last point will serve very effectively in driving home the purpose of the study and the standards as well.

Where the bonus system for work over standard is instituted, it is advisable to make a daily report of each operator's extra bonuses or of the department's bonus. This will serve as an incentive to overcome reluctance toward cooperation or misunderstanding. This information can be furnished to operators on slips of paper or as part of the payroll sheet for the entire department that may be posted. Where individual bonus payments are made, it is generally best to post such records of performance and extra pay to maintain a spirit of competition.

One authority points out that the application of standards with attendent incentives furnishes the basis for plant control, if the measure is equitable and the operators make a reasonable increase in earnings.

"The stabilized performance which follows the operator's confidence in the standards increases the reliability of the measure as a denominator for control. From a measurement conducted according to the rules of fairness, many conditions under which the manufacturing must be done are brought out as interfering with the normal flow of work. Control begins when the allowances made to protect the operator for these variations are compared with the cost to remedy the conditions and some definite action is taken to reduce the occurrence."

These interferences, their remedy and subsequent control are a matter that must receive attention after standards have been put into operation. There are, of course, many additional factors and problems involved in time and motion study and establishment of standards that may be incorporated into the department if desired, but their use is more adapted to other parts of the plant.

The application of the method of procedure shown herewith will prove a simple method of ascertaining the facts desired in establishing time standards for the packaging department. If one wants more detailed information or needs further application, that, too, can be taken by a more thorough study and adaptation of procedure. However, in the average packaging department this generally proves to be a waste of time as well as money unless the volume of work produced is exceptionally large.

It is advisable to remember that the system described in this article, if properly conducted by an individual who has a working knowledge of equipment and operations, will also serve to secure a maintenance check-up of equipment in the department.

The facts as discovered with regard to equipment and procedure should be put into force before any time standards are set upon the department.

Such action will not only bring increased efficiency and lower operating costs from less cost per unit packaged, but will reduce maintenance and operating costs as well. It is just as profitable for the packaging department of any plant to make a profit by reducing its cost of operation as it is for a sales department to make profits by increasing the scope of the market for the product packaged.

6. The final recommendations. It will be noted how the reports of the study have been used in establishing this particular official's standards. Note that he has taken the averages ascertained by the survey, the recommendations of the checker, methods of wage payment and other factors into consideration in making his list of standards to be followed in the department.

RECOMMENDATIONS

FROM

TIME AND MOTION STUDY *Black-Jones Company*

DATE MADE 5-1-41 DEPT. Packaging NO. CHECKS 10 EACH

OPERATION NO.	AVERAGE TIME	CHECKERS REC. TIME	SUPT. REC. TIME	STANDARD ADOPTED	REMARKS
1	656	660	610	640	
2	182	190	130	165	
3	597	560	510	540	
4	935	925	855	900	
5	375	380	325	370	
6	302	310	220	280	
TOTALS	3047	3025	2650	2905	

REMARKS:— Above figures represent totals seconds times ten to simplify calculation. Believe establishment of standards totaling 4 min. 25 seconds for operation best after suggested instructions to operators (see attached sheets) and maintenance repairs on equipment to make same first-class operating shape. Suggest total bonus system for whole department based on calculation of volumne per day department at present handling divided by 4.25 time standard. Bonus to be paid department operators, pro rata, for excess volumne packaging. Suggest minimum quota of 25% over present vlumne as starting point for such bonus.

May 7,1941- Supt. rec. too rigid after close study reports; make 60 day test period on above final col. recommendations.
H. Harrison, Gen. Mgr.

Hopkins

SUPT. IN CHARGE DEPT.

Three-in-one gum wrapper

Machinery engineers are constantly making an effort to anticipate the needs of packagers in designing their equipment. Sometimes standard equipment, quickly adjustable to handle many different sizes and types of products and packages, may be utilized to meet production needs and plant requirements. Sometimes, however, special machines must be designed to meet individual requirements.

Falling into the latter category is the battery of machines adopted by the American Chicle Co. for the production of its new packages of Dentyne chewing gum. This company was confronted with a knotty wrapping problem. Sponsoring a product of large volume and low selling price, the firm found it necessary to get a machine that would perform every portion of the packaging operation from the breaking of the long slabs into individual pieces of chewing gum to the discharge of the complete five-cent package.

The machine adopted does the job. It consists of three separate units combined into a single unit. The slab or scored strip of chewing gum is fed by the operator into a magazine. The slabs are fed from the bottom of the magazine continuously and automatically on to a belt which carries them between breaker wheels which automatically break the individual gum pieces.

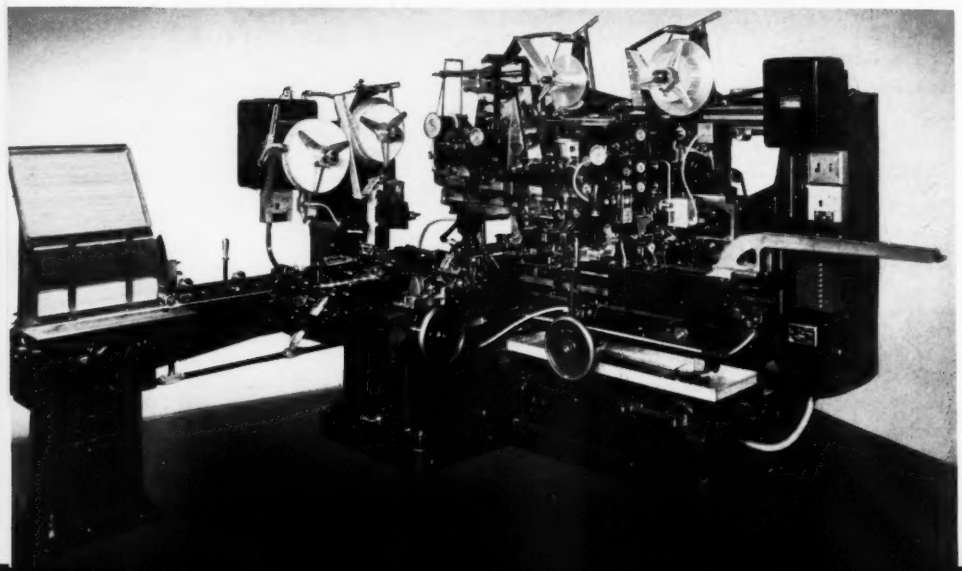
The individual pieces are then carried into another part of the machine which automatically wraps them one at a time. Each stick is wrapped in a single printed paper wrapper fed from a roll, the printing being registered by means of an electric eye. The individually wrapped sticks are then collected into lines of six and fed into the third unit of the machine. A special mechanism is provided to discard improperly wrapped sticks.

The group of six individually wrapped sticks then goes into a device where it is first wrapped as a unit in wax-lined foil. The end folds and the longitudinal seam is completely sealed by means of liquid wax. An easy-opening tape is applied around the end of the package under the foil. The notch through which the end of the tape protrudes is securely sealed with liquid wax to produce a moisture-proof and air-tight package. The security of the seal is continually tested.

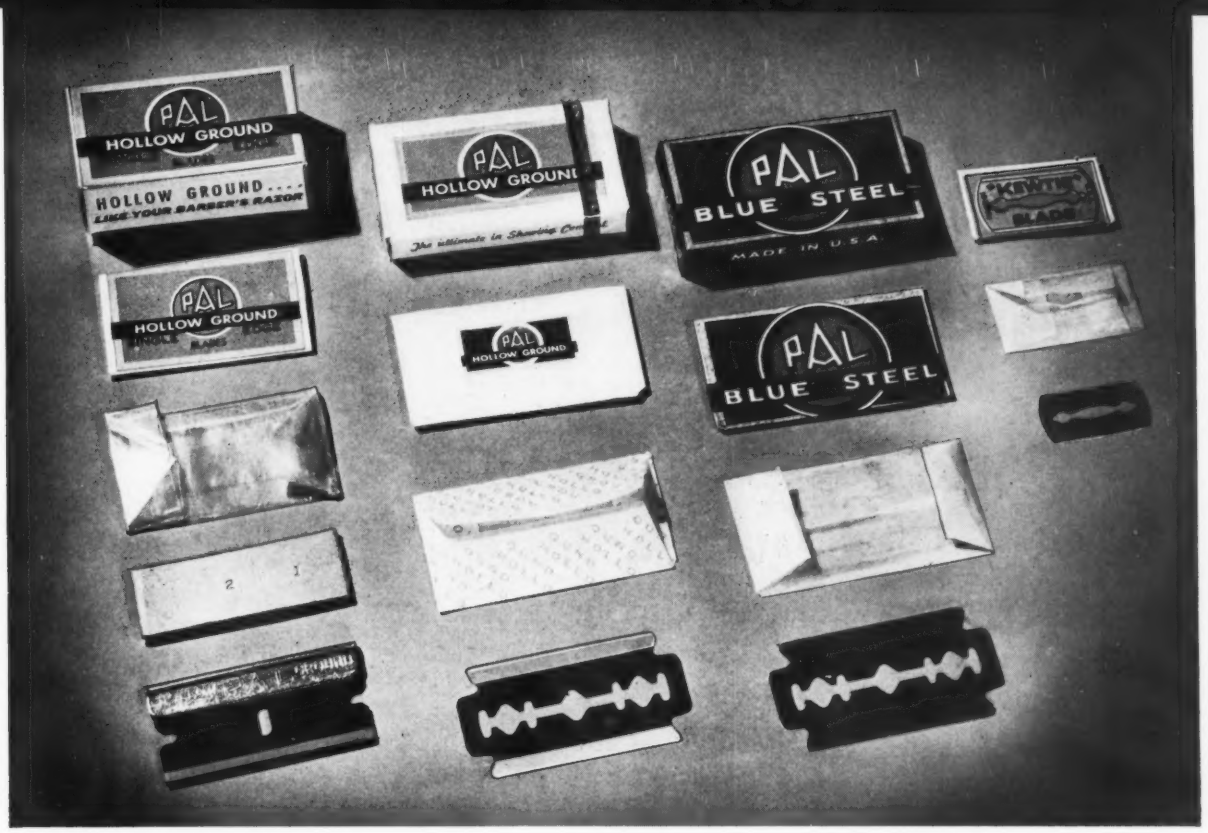
A printed paper band is applied over the foil from a roll and this band, like the wrapper on the individual sticks, is again registered by means of a second electric eye. The finished packages are discharged in a stacker which turns the packages up on edge so that they can easily be placed into the cartons for distribution.

Credit: Machine produced by Package Machinery Co.

1. Gum is fed into the machine in scored strips. **2.** Machine divides strips into small pieces. **3.** Wraps them individually in printed waxed paper. Printing is registered accurately by electric eye. **4.** Assembles the individually wrapped piece into groups of six in a line. **5.** Wraps them in waxed backed foil and inserts an easy-opening tape. End-folds, seam and notch where tape protrudes are sealed by liquid wax to keep the gum fresh. **6.** Printed paper band is fed from a roll and glued around package, with printing registered accurately by electric eye.



Every portion of the Dentyne gum packaging operation is performed by this unit, from the breaking of the long slabs into individual pieces of small chewing gum to the discharge of the complete five-cent gum package.



The component parts of the packages used for each of the four blade types vary. Some brands are wrapped only in waxed paper or paraffin parchment instead of being double-wrapped. Some use cartons, cellophane overwrapped.

Dedicated to the daily shave

North from the home of "Trade" and "Mark," the famous bearded Smith Brothers, is a factory "dedicated to the daily shave." Originally the Pal Blade Co., now at Plattsburgh, N. Y., occupied a small one-story building with a modest production capacity. They grew steadily from this unauspicious start. Within a year they had doubled their production and in less than ten years they had grown to the point where today they are regarded as one of the largest manufacturers of safety razor blades in the world.

To put it another way, the strip steel from which blades are made comes to them in coils, each about 2,600 ft. long—nearly half a mile. In the course of a single day they use 75 to 100 of these coils—from 35 to almost 50 miles of strip steel!

The principal source for this raw material has been Sweden and Swedish steel has always been held in very high esteem because of its finer grain. During the past year or two, however, Swedish steel has become increasingly difficult to obtain and consequently higher priced—though an occasional shipment still gets through. However, in anticipation of this possible shortage, the Pal Blade Co. has built up a considerable inventory of Swedish steel, thus to protect the numerous distributors whom it serves. A few domestic steel manufacturers specializing in high quality steel have been gradually developing razor blade steel comparable to the Swedish product.

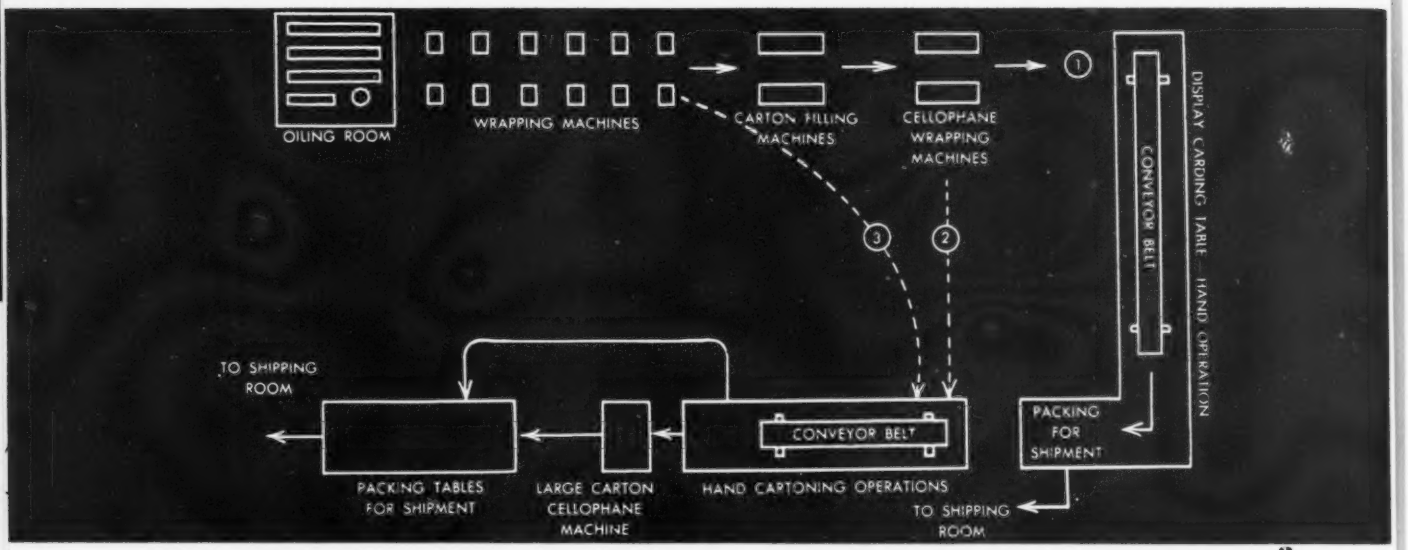
Packaging operations at Pal Blade Company's plant are conducted on a continuous flow plan, diagrammatically represented by the accompanying blueprint. Most of these packaging operations are performed by automatic machines, but the nature of the product demands semi-automatic and hand-packaging operations in addition. Not all of the output is packaged in the same manner. Some blades, for instance, are merely wrapped in waxed paper and shipped in bulk cartons of 50 to 100 blades. Others are wax-wrapped and enclosed in labels, inserted in cartons containing two to ten blades. These cartons are then wrapped in cellophane with a "zip-tape" opener and packed in bulk containers for shipment.

Wrapping and carton-filling operations are all automatic. Display carding and preparation for shipment are operations performed by hand.

Razor blades demand careful handling. Any man who has nonchalantly handled a razor blade knows that it can inflict some unappreciated cuts, but he may not

1 2

1. A corner of Pal's Production Department, where machines perforate 35 to 50 miles of strip steel per day in one of the largest safety razor factories in the world. **2.** Three shifts a day run in every department, even in this corner of the machine shop where the Pal boys make their own replacements and take care of repairs. **3.** Blueprint demon-



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strating how Pal's packaging operations are conducted on a continuous flow plan from the oiling room to the wrapping machines to the carton fillers and cellophane wrappers to the display carding table and finally to the packing tables for shipment. **4.** Applying "shells" to single-edge blades. **5.** Fixing blade cartons to display cards by hand.

4 5

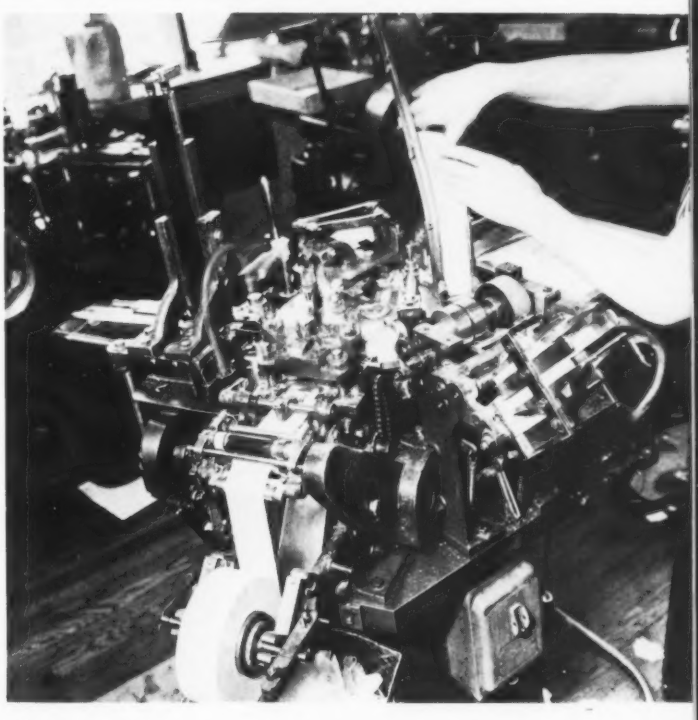
realize that after this sharp edge is imparted the packaging must be done with extreme care to protect the blade right up to the time it is applied to Mr. Ultimate Consumer's tender face.

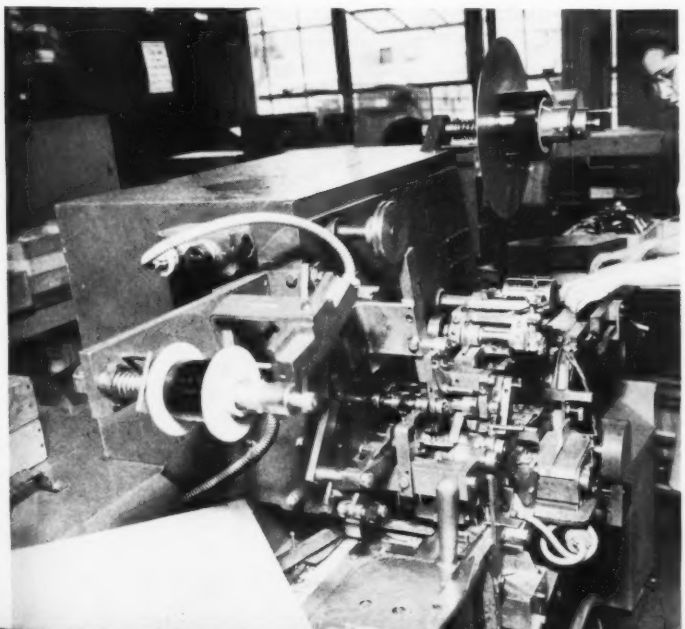
In the production department, one of these half-mile long coils is fabricated into perhaps 15,000 to 20,000 individual blades. With uncanny skill, to each blade is imparted that amazing sharpness which takes a good deal of the curse from the daily chore of shaving. The edge, however, is by no means left to chance. Under the steady glow of fluorescent lights with powerful microscopes at hand, blades are subjected to intensive inspection. From the inspection room, the finished blades go to the oiling room where the first step in the intricate packaging operations is taken. The oiling is genuinely a part of the packaging, for each blade must be coated with a thin film of oil to insure it against rust. Pal Blades are shipped all over the world, for even uncivilized man has become an addict of the shaving habit. No matter what the conditions of temperature or humidity may be, this oil film protects against rust.

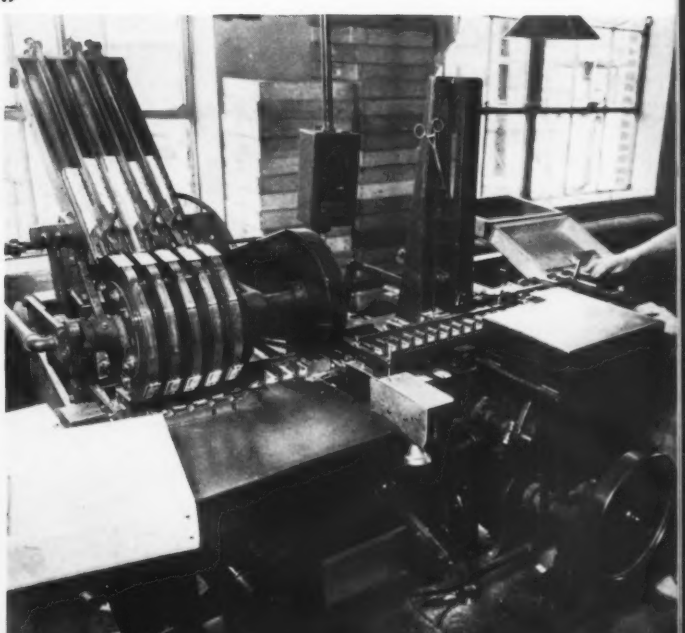
Adjacent to the oiling room is a battery of wrapping machines—precise, accurate, rapid and compact. Of German origin, these wrapping machines are subjected to a grinding grill of 3-shift operation. No longer dependent on Germany, the Pal Blade Co., in its own machine shop, has built and installed several of these wrapping machines which mark decided improvements over the original ones.

Keeping in mind that each blade must not only be individually wrapped, but must be handled in such a way that its delicate edge remains in perfect condition,

6. Section of the packaging department showing part of the battery of wrapping machines. **7.** Close-up of a wrapping machine, double-wrapping thousands of blades per day. **8.** Applying the "zip-tape" to facilitate easy opening of blade cartons. **9.** Close-up of one of the carton-filling machines.







the speed at which these operations are performed is remarkable. Four thousand blades per hour are double-wrapped and sealed by each machine.

The operation is interesting to watch. Outer labels, already die-cut, are fed on to a horizontal rotating table from a feeding stack. At the next station of this rotating table is a roll of waxed paper or glassine, from which the machine itself die-cuts the inner wrapper and places it on top of the outer wrapper. Moving on, the two wrappers come to the next station where a blade is lifted pneumatically and placed on the two wraps which are then automatically folded and sealed by means of a glue spot. From there, the blade, now double-wrapped, moves on, by means of the rotating table, to the next station, where it is fed to the delivery stack, from which the operator conveys it by hand to a "tote box," for the next operation.

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Some brands of blades are wrapped only in waxed paper or paraffin parchment instead of being double-wrapped and, perhaps, are not packed in cartons. On leaving the delivery stack, therefore, these may "by-pass" the carton-filling machines to be hand-packed for shipment in bulk. For most of the blades, however, carton filling follows the wrapping operation. The machines for this step can be set to fill and tuck cartons to contain from one to ten blades. The usual contents are four, five, six or ten. These machines have automatic stopping devices which function instantaneously if there is a shortage of the required number of blades. Double tuck cartons, delivered flat to the loading stack, are automatically filled and tucked, whereupon the cartons are ready for the next station which is cellophane wrapping. The cellophane machines wrap and heat-seal in one operation. Some carton production is sent to a special machine which wraps and also applies "zip-tape"—a double operation—at the rate of 6,000 packages per hour. The "zip-tape" facilitates easy opening of packages.

Some of their blades receive special merchandising treatment; that is, the small 10- or 25-cent cartons are mounted on display cards and the result is a retailer's sales unit of from 4 to 20 packages affixed to a dispensing display, sometimes accompanied by a window poster and free sample cards for distribution in local stores by the retail dealer.

So far, we have been observing the double-edge blades. Single-edge blades must be treated differently. Production operations, carried on in a separate department from the double-edge blades, must include the assembly of blade and back before grinding, honing and stropping takes place. The single-edge blades, like the double-edge, require a thin film of oil for rust protection. In order that these blades, with their extra thick backs, may stack and pack more advantageously, they must go through what the Pal folks call a "shelling" operation. This means that a heavy kraft protecting ribbon must be placed around each blade. This also protects the delicate edges.

For this operation, Pal mechanics have developed and built their own "shelling" (*Continued on page 104*)

10. Placing single sample blades on cards for promotional use.

11. Single-edge blades being inserted into cartons which are then cellophane wrapped and shot out for inspection at right.

12. The blades receive special merchandising treatment. Small 10- or 25-cent cartons are mounted on display cards. Result: sales units of from 4 to 20 packages affixed to a dispensing display. In the foreground are special unit packages.

1. Live roll conveyors in the new Seagram plant, Louisville, Ky. Switchboard in foreground coordinates with the conveyors by providing communication with all departments.

Let conveyors do the job

Today package conveyors are proving an efficient answer to the complex problems of labor shortage and increasing labor rates. In countless plants, various types of conveyors are speeding up the continuous flow of materials and work to establish a more perfect balance of all operations, utilizing every second of every worker, shaving down time and handling costs and reducing fixed charges and handling hazards.

When conveyors are considered in the design of a manufacturing plant, the size of the building can be kept to a minimum. This makes possible a great saving in all fixed charges, such as the cost of land and building or rent (in either case taxes are included), heat, light and maintenance. Saving in the aisle spaces alone contributes most to permitting the erecting of the smaller building. Conveyors permit handling and movement of material with the use of a minimum of valuable floor space for storage. Naturally, the smaller the area in which work is performed the less the fixed charges.

Typical examples of the economic value of conveyors in industry follow:

A manufacturer of a 10-cent cigar investigated the possibility of doubling his production. It was found that his factory would have to be increased approximately 60 per cent to give the necessary floor space. This did not make the proposed change attractive. After a survey was made on the basis of completely conveyorizing the factory, it developed that the original plant need only be increased 25 per cent. This made the entire project feasible. The conveyor installation showed a return of over 40 per cent annually. Today the factory produces almost a million cigars a day. The cigar now sells for 5 cents and is one of the largest selling brands in the country.

A manufacturer of candy bars cut his costs 30 per cent. This included: elimination of waste and of damage to boxes, cartons and products, a material saving in freight-elevator power, increased efficiency of labor, reduction of noise and confusion, a favorable revision of compensation insurance rates and a smooth flow of materials through the plant.

Eighty-five thousand dollars yearly was saved by a large electrical goods manufacturer after conveyors

2

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eliminated trucking and coordinated the work of assembly departments.

It took 18 men to move pumps from one department to the next in a large midwest plant. Conveyors released 14 of these men for more productive work.

A maker of automotive parts discovered that he could double his production without extra floor space. A 38 per cent cut in production costs was made by another automotive parts manufacturer when conveyors enabled him to keep machines and men uniformly busy.

A Connecticut hardware manufacturer worked a miracle in getting fancy hardware and metal products through his packing department on time and in shipping orders the same day they were received. More—the conveyors have saved 40 per cent in packing labor and have reduced the floor space required by the department more than 50 per cent.

With the installation of a conveyor system, an Eastern biscuit manufacturer was able to double his production per sq. ft. of floor space.

In a large plant where cooking utensils are made, conveyors paid for themselves in six months' time by the progressive movement of materials to the next operation, and by less damage to the products.

A maker of floor wax paid for a complete system of conveyors in two years. Aisles were kept free of trucks and confusion; men were relieved for more important duties. Freight cars were often loaded direct from the production conveyor lines without the cartons ever reaching the storage department.

Conveyors made it possible for a washing machine manufacturer to build a better machine, freer from finish defects than ever before in the history of that company. The conveyors took away all the hard work on the test floor, did away with damage to machines and saved repair expense.

Packing and shipping costs were cut 25 per cent by the cosmetic manufacturer. Overtime costs were eliminated. More shipments were handled per day by the orderly flow of products over the conveyors.

One wholesale drug house reclaimed 50,000 sq. ft. of floor space by installing a carefully planned conveyor system. In this case, the capacity of a new building was added at a mere fraction of the cost of a building. On one installation of conveyors for taking bags from machines to trucks and ships, the entire $180,000 conveyor system paid for itself in less than a year. In this installation a 1,000-ton vessel is loaded in nine hours, an operation which formerly took two days.

Here are the commonly used types of conveyors in the packaging field:

Roller Gravity Conveyors

These conveyors are made of a series of rollers mounted in a rigid frame. The rollers are made in various sizes to accommodate all weights of loads. Empty cardboard boxes, for example, can be conveyed only on very light rollers. The rolls must be light enough to permit the loads to overcome the inertia of the roll tube and bearings on a practical grade. Heavier loads require rolls with bearings and shafts that are strong enough to sustain the load imposed on them.

Gravity Chutes

This type of gravity conveyor is usually made of structural steel and sheet metal and acts as a confining means for lowering loads from (*Continued on page 105*)

1

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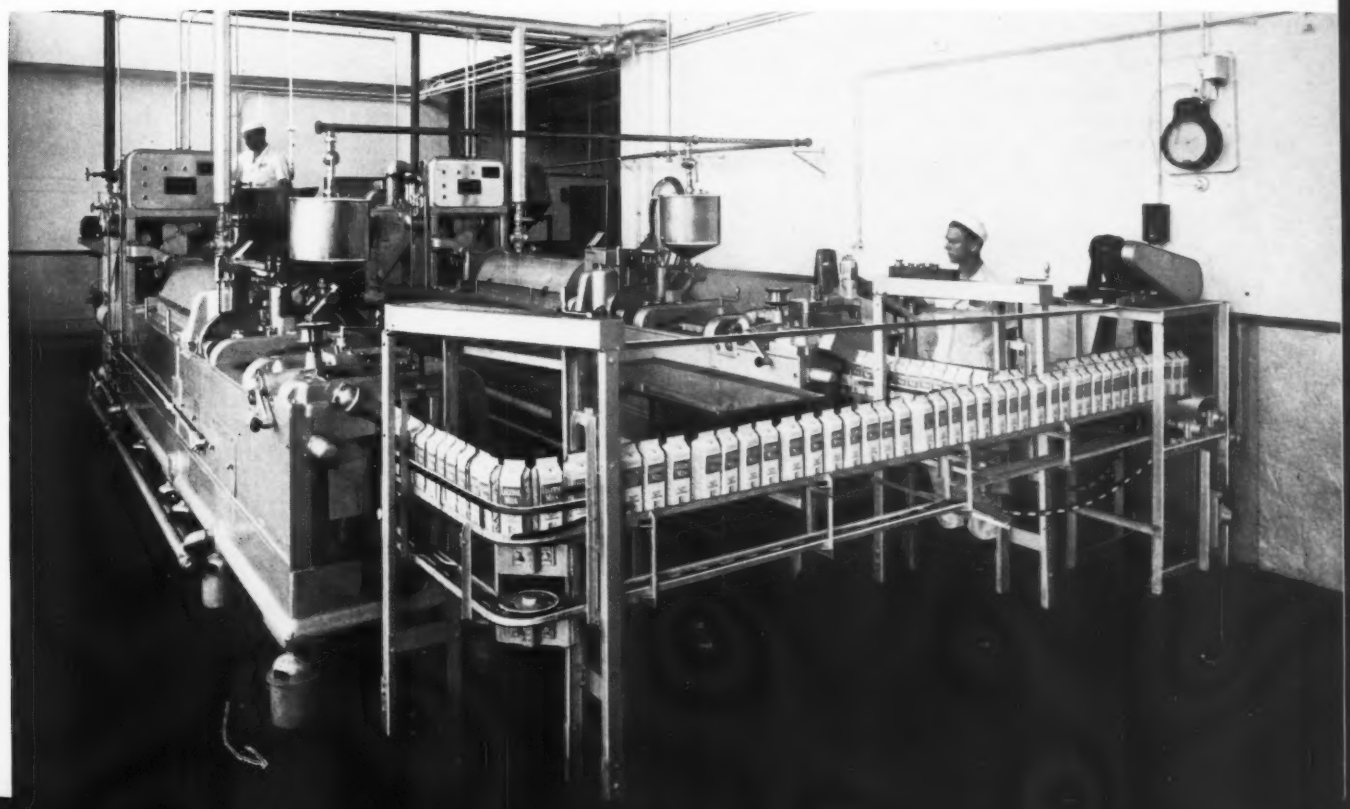
2. Gravity spiral conveyor moves cases of bottled beer to storage. **3.** Inclined belt conveyor is shown taking packages from pick-up conveyor to trunk line conveyor for delivery to trucks in large wholesale grocery. **4.** Belt conveyor and inclined belt conveyor in pick-up department of one of the country's largest and busiest wholesale grocery companies. **5.** Overhead chain conveyor brings cartons of paint to storage and delivers them to the loading dock at the Acme White Lead & Color Works. Means for attaching the load to the chain are provided and may be in the form of hooks or carriers. **6.** Drag chain conveyor is shown taking bottles of milk from bottling machine to cooler at Lucerne Dairy in Oakland, Calif. The chain, which can be either single or double strand, rides in a steel track.

6



Operators at filling and capping machines. Alfred D. McKelvy Co. had planned to replace this semi-automatic equipment with automatic bottle-filling machinery, but delayed delivery dates and expanding production made it necessary to get faster production with existing facilities. Hence a complete revision of the manual line.

Manual-line efficiency

When the shortage of packaging machinery, particularly of a custom-built nature, began to be felt, the Alfred D. McKelvy Co., maker of Seaforth Toiletries for men was in a peculiar position.

Because Seaforth was new, a relatively small amount of machinery had been accumulated during its short period of existence. Because the company's growth had been so rapid, the pressing need for machinery was acute. Because the Seaforth container was of a specialized nature, standard machinery was not practical unless adapted first to the unusual Seaforth jug.

In this case, "necessity became the mother of invention" on short notice and under pressing circumstances. The only thing left to do was to put hand production practices into effect. This has proved efficient.

The first spot where expanded facilities were urgent was in the sterilizing of the Seaforth jugs and mugs. Standard machinery was not available without a great deal of modification, since the containers have eccentric shapes due to their handles and are not uniform because they are hand made.

A six-month wait for a manufacturer to adapt a standard machine to the company's needs was an impossibility. Seaforth met the problem by producing its own sterilizer. This was worked out on a wagon-wheel principle. A center column of boiling water enters the hub and flows out through the spokes. All spokes are fitted with upright spigots which fit into the jug neck. As the wheel rotates automatically, one operator feeds jugs on to the spigots while another removes them after the wheel has rotated. During the rotation the spokes disappear under a copper hood where boiling water is ejected from the spokes and the containers are sterilized.

This simple type of sterilizing machine was not unusual in itself, but for its unique construction in local machine shops. The frame work is made of oak covered with copper sheeting. Despite its manual operation, one sterilizer can handle 5,000 jugs per day and do an efficient job of sterilization.

The company had planned to install automatic bottle filling equipment to replace its semi-automatic equipment, but delayed delivery dates and rapidly expanding production made it necessary to get faster production out of the semi-automatic machines al-

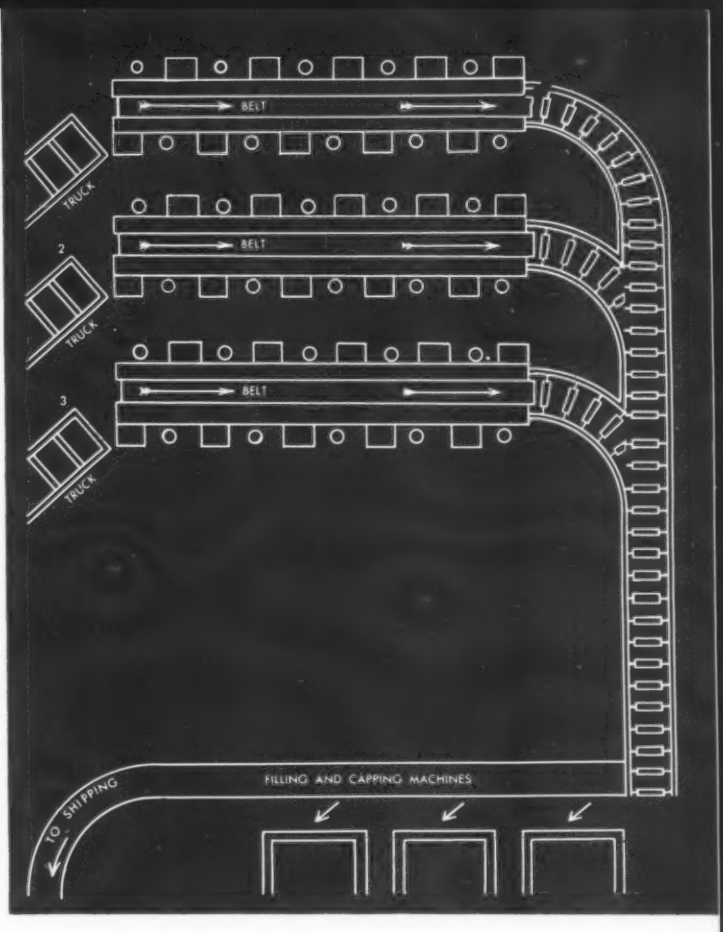
ready in use. To achieve this, the company revised its continuous line production.

In the past, operators had labeled individual jugs by hand and each one passed down a belt to girls who stacked them on tables awaiting their turn on the filling machines. This had the appearance of efficiency until the company discovered that each girl could label 16 jugs, placed in trays down the moving belt, as quickly as she could label the jugs moving down the belt in a single line. The time-saving element of the 16-jugs-to-a-tray system came at the end of the conveyor line. The time it took for a girl to label 16 jugs enabled the first jugs on the tray to become dry (Seaforth uses decalcomanias). Thus, when the trays reached the filling machine, they could be put under the spouts intact and be filled without re-handling.

In short, the tray on which the original labeling operation took place continued as a carrier for the 16 jugs through all operations: labeling, transportation through the plant, filling, capping, sealing, boxing and transportation on trucks to the shipping department where the trays are emptied and start back on their original route again. The real saving was the elimination of handling, since a tray carries the same jugs through all operations until they reach the shipping department.

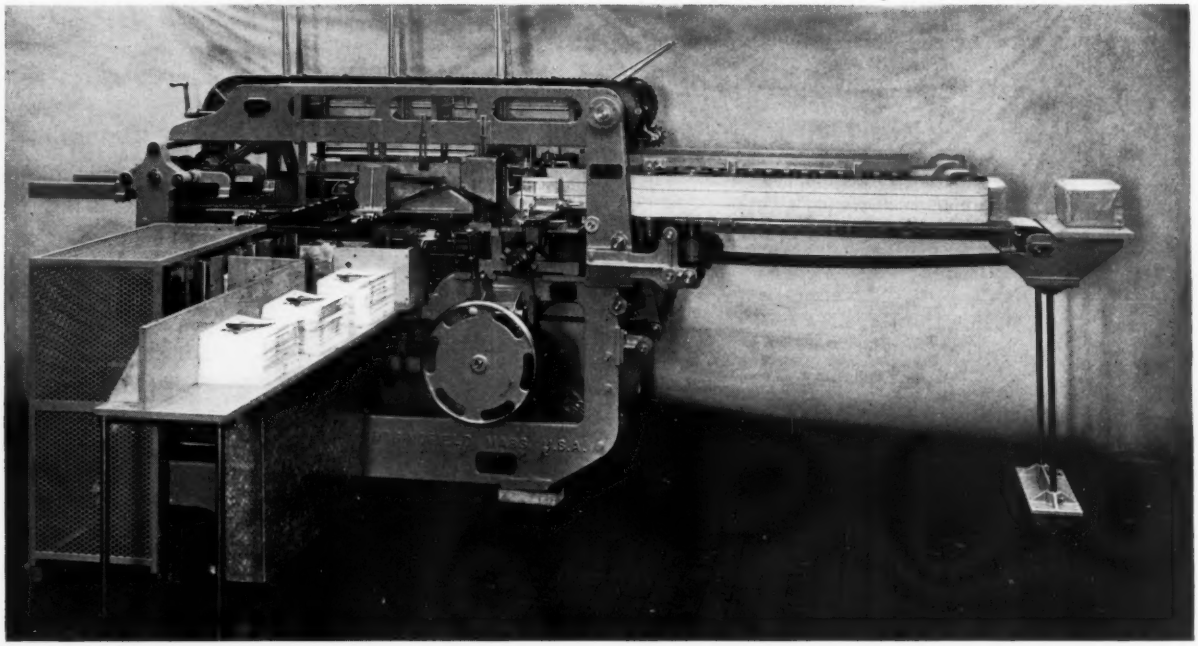
For the design of the trays, the company used dimensions which were the least common denominator of the diameters of the various containers. In this way, both shaving mugs and jugs would fit into the same size trays, although the number of each type of container a tray would hold would be different. This made only one size tray necessary.

Application of decalcomanias on eccentric-shaped objects has always necessitated tedious, hand operation. In constructing a labeling line in anticipation of expanded production, this (*Continued on page 100*)



Above: McKelvy's production line plan. All hand operations are set up in units so that production can be increased simply by adding a new labeling unit or line of girls. Below: The new time-saving manual line. Each girl can label 16 jugs placed in trays down a moving belt as fast as she could formerly label a single line of jugs down the belt.

Giant bundler is easily adjusted



One of the largest bundling machines ever devised was recently installed at the Cuneo Chicago plant to handle a wide range of magazines.

Two of the largest bundling machines ever built have recently been installed in the Chicago plant of The Cuneo Press, Inc., where they are being utilized to wrap a wide series of publications.

The machines are unique in a number of respects, but primarily in their ready adjustability to varying bundle heights. Such adjustability was particularly essential in this installation where a number of magazines had to be wrapped together. Not only do bundle heights of such periodicals as "Good Housekeeping," "Cosmopolitan," "Silver Screen," "Liberty" and "American Legion" vary greatly one from another, but the bundle height of any one of these magazines may have a substantial variation from month to month—a variation dependent upon seasonal factors, the volume of advertising and many another consideration.

Another factor affecting bundle heights is found in possible variation in the number of magazines to be contained in a bundle. A single publication might utilize bundles of several different quantities of magazines during a single month or might vary its quantity per bundle requirements from month to month to meet the changing circulation distribution conditions or to compensate for the increased weight of the individual magazine or to comply with postal or freight regulations affecting the weight of the individual bundle.

As installed in the Cuneo plant, magazines come to the wrapping machine on a conveyor already stacked in quantities proper for the publication's bundle requirements. This conveyor carries the magazines from the trimming machines which cut the excess paper off the top, bottom and right hand edge of each magazine. The operator slides the bundles, one at a time, into the infeed of the machine, after which paper is automatically fed from the roll. One machine completely overwraps the bundle. A heavy kraft paper is utilized and separate end seals are automatically applied, the completed bundle being discharged from compression belts at right angles to the infeed. The other machine bands other bundles of magazines, the band protruding beyond each end of the bundle.

Trips are provided to prevent feeding of paper from the roll or feeding of the end seals from their reservoirs when no bundles are positioned to be wrapped. Thus a pause in the conveyor delivery of stacked bundles does not result in the wasting of bundling materials. An overhead chain carries each bundle individually through the folding line. The discharged bundles may be removed from the discharge point by conveyor or may be stacked on skids for removal in quantity to distribution trucks or freight sidings.

The machine, as installed in the Cuneo plant, has a capacity of from 20 to 25 completely wrapped bundles per minute, each bundle weighing about 30 lbs. and containing up to 50 magazines.

Credit: Machines designed and constructed by the Package Machinery Co.

Machinery Men Say

Confidential statement of a prominent machinery manufacturer: "The Defense Program is beginning to have some effect on our business of manufacturing packaging and bottling machinery in that it is no longer possible to quote normal deliveries. First we, of course, depend upon many outside concerns for supplies and deliveries on such items as springs, rubber, aluminum, electrical equipment, alloy steels and other things that are slowing up. Then, too, we are endeavoring to do our part in the Defense Program and our manufacturing schedule is being interrupted more and more because of the necessity of putting defense orders ahead of all other work we may have on hand.

DELAYS IN DELIVERIES

"There are bound to be further delays in deliveries of new machines and customers can aid us considerably by anticipating machinery requirements and placing their orders as far in advance as possible. This will enable the machine builder to order the necessary auxiliary equipment immediately and schedule the manufacture and assembly of the machine so that there will be a minimum of interference from priority work.

"Replacement parts for existing equipment do not present any great problem to us at this time because our policy always has been to carry a generous supply of stock on hand. Generally speaking, we are still maintaining normal deliveries on size change parts which are special, although slight delays are occurring in cases where castings and other materials purchased outside our plant are required.

MATERIAL SUBSTITUTIONS

"The matter of substitution of materials heretofore used in the manufacture of our machines and not readily obtainable now, is so far not serious. Where changes are necessary due to the shortage of aluminum, alloy steels, etc., the substituted parts are being tagged either permanent or temporary.

"While on this same subject of substitution of materials used in the manufacture of packaging and bottling machinery, there is one important point not to be overlooked. It would be serious, indeed, if aluminum, nickel, stainless steel and certain other materials were not available in some measure to the packaging and bottling machine manufacturer. These corrosion resistant metals are essential if the health of the consumer is to be safe-guarded because all machine parts coming in contact with foodstuffs and pharmaceuticals must be made of metals that are not attacked by the product."

A similar viewpoint is expressed by John A. Silver of the F. J. Stokes Machine Co.: "As I see it," writes Mr. Silver, "the situation is becoming increasingly serious due to the difficulty in securing certain materials such as aluminum, stainless steel, etc., and also because packaging equipment is likely to be considered a non-defense item unless under unusual circumstances. As a result those using packaging machines should take particular care in the maintenance and upkeep of their present equipment and try to anticipate as far in advance as possible any repair or replacement parts that may be required."

Mr. Carl Lambelet, President, New Jersey Machine Corp.: "In the first place, many packaging machinery manufacturers are today working on the Defense Program. This, least wise from our own experience, coupled with abnormally heavy buying, is cause enough to affect the delivery question.

"In the second place, the draft enters into the picture in that one's personnel is being depleted, replacement is difficult due to the scarcity of skilled labor and even if such positions are filled, new men lack the experience with the product being manufactured and efficiency is most definitely affected by these personnel changes.

DRAFTED ENGINEERS IRREPLACEABLE

"The question of depleting one's personnel is particularly serious as far as the engineering and drafting room staffs are concerned, and I do not believe there is any packaging equipment manufacturer who can replace men with several years of experience behind them in these two departments with new men without feeling the effect, for, irrespective of how good these new men may be, it really takes months before they are as proficient and fast as those whose places they have filled, due to unfamiliarity with the manufacturer's designs and policies.

"In the third place, you have, of course, the question of the procurement of materials, electric motors using variable speed transmission, motors with uncommon electrical characteristics and various other accessories which are bought by all packaging machinery manufacturers in the completion of their machines. It has been our experience that where six months ago we were able to get castings on two or three days' notice, now it takes from ten days to two weeks or more. As a rule, when a customer wants change parts, he wants them fast and the necessity of getting them quickly is not always his fault. However, users of packaging machinery should be warned to foresee these needs.

REPLACEMENT OF MATERIALS

"Back in '39, our company foresaw the possibility of a situation arising as it has today, and consequently, even back as far as the latter portion of that year we readjusted our inventories so as to be able to cope with the situation. At that time we realized that materials, particularly aluminum, would be in critical positions and consequently, we made certain design changes so that today we use very little of this material.

"Some nine months ago, appreciating that brass, due to zinc being an ingredient, might likewise become critical, we started research as to the possible use of plastics on certain parts of our equipment and, further, at the present time we are doing research work with reference to the possibility of using plastics on certain parts in place of cast iron. However, these two latter problems have not as yet arrived at the point where we are replacing the materials in question, but results so far have been very gratifying.

"I do not believe that there is a serious threat in a possible trend towards manual operation due to the inability to get new machinery or equipment. Manual operation is expensive and with the general upward trend of wages and the necessity of training green help, I believe that there will be a greater tendency of trying to speed up present equipment which is in use, possibly using older models which have been set aside or acquiring used equipment either from dealers in such equipment or from other companies who might have a surplus. This, I believe, is more of a threat to the machinery manufacturer than manual operation."

Other important opinions follow: Mr. Frank B. Fairbanks, Secretary-Treasurer, Horix Manufacturing Co.: "I indicated that we were going to see higher costs both for labor and material. Already we have had an increase in our basic labor costs of nearly 15 per cent. While it is true that the mill prices of steel have been 'frozen,' since practically all of our material is purchased in semi-finished form, these items have already gone up and others will undoubtedly do so in the near future.

"Stainless steel, brass and other metals are severely restricted and while there is hope that some will be released for machinery for the packaging industry, the tendency is for an increasing proportion of metals to be diverted to the Defense Program.

"It is increasingly probable that manufacturers of packaging machinery will be required to devote their facilities to the manufacture of munitions and that the best we can do for our customers will be to endeavor to take care of their needs for replacement parts."

Mr. H. H. Leonard of Consolidated Packaging Machinery Corp.: "As the defense program develops, it is becoming apparent that practically all packaging machinery manufacturers are going to be compelled to take on more and more of this defense work. While provision can be made for increasing organizations and facilities for doing the work, nevertheless it constitutes an extra strain on the existing personnel of such companies. This must of necessity have some effect in curtailing production of peace-time packaging machinery and certainly will tend to cut down development of new machinery. The difficulty of obtaining certain types of material is growing more pronounced and while it is possible to secure substitutes for many types, nevertheless the delays in delivery on such items as motors and electrical equipment tend to make delivery of packaging machinery in a reasonable period of time more difficult.

"It does not seem to us that these conditions will tend to encourage the substitution of semi-automatic machinery for fully automatic machinery, because the problems which are encountered in getting the fully automatic machinery manufactured are equally as prevalent in the semi-automatic machinery. Many people fear a distinct labor shortage before the present situation is over and, therefore, are rather anxious to eliminate as much hand labor as is possible."

Mr. Prescott C. Fuller of the Dexter Folder Co.: "Our experience with our parts business has been that many concerns are ordering far in excess of their normal needs, anticipating the fact that they may not be able to acquire replacements in the near future. As one small part may hold up an entire production line, this policy of getting a supply of all the possible parts that might break or wear out seems very logical and far-sighted. Our factory has maintained deliveries with a minimum of delay in spite of increased parts business.

"Lately there has been much material published concerning a boom in the paper board industry. Many Government departments, particularly the Army, have always required that materials be shipped to the various camps and posts packed in wood. However, the need for material now is so great that wooden containers are not available in large enough quantities and, like most of private industry, the Army has had to turn to fibre boxes. The result, of course, has been that manufacturers in the paper board machinery line have been swamped with orders from old and new customers producing boxes and shipping containers and also from the concerns who subsequently make use of machines of this kind for sealing these paper board containers.

FORCED PRODUCTION

"Probably we have only begun to feel the effects of forced production. Recent estimates are that the Government contract work will soon take up about 10 per cent of all box mill production in the United States and that before long almost all of the fibre, can and drum manufactures will be used for Army purposes. The only conclusion to be drawn from these facts is that manufacturers must equip themselves now with the packaging machinery which they are going to need, while

they still can get delivery, even though sometimes these deliveries must be somewhat deferred."

Mr. A. J. Sterling for the Consolidated Packaging Machinery Corp.: "1. Raw materials are becoming more scarce each day. 2. Machine tools are no longer procurable, unless you want them for defense orders and each requisition is for a particular order. 3. Inventories will be strictly controlled by OPM. 4. Labor costs will be higher."

Mr. C. E. Schaeffer of Stokes & Smith Co.: "Referring particularly to the delivery on new packaging machinery, we are up against two serious problems: First, the difficulty in obtaining certain materials for standard equipment, particularly stainless steel, aluminum, etc. It is now impossible to obtain some of these materials except on priority orders for defense work. Secondly, the scarcity of skilled labor. As we all know, the defense industries, ship yards, etc., are all making attractive offers to all kinds of labor and at rates which it is impossible for some of us to meet. This is certainly going to mean increased cost and longer deliveries. A great many of the so-called standard packaging machines, while they are standard up to a certain point, must be completed or have a certain percentage of parts made specially for the particular package or container to be handled. Therefore, there are practically no "stock" machines except for certain semi-automatic or hand operations. Many companies have unfilled orders so that delivery on new orders may be four, five or six months or longer."

Production Men Say

What about the user of package machinery? Generally speaking, his need is for modernization of plant equipment. Years of depression have left many plants with antiquated and obsolete equipment. But, with intensified federal regulation, increased wages, stiffened competition and increased demand, reduced costs are of paramount importance. Hence the quest for more efficient machinery, better working conditions for employees, quality control and all the other things that go to make for a profitable operation.

Statements received from packagers reveal a consciousness of the problems confronting the machinery manufacturers and a disposition to cooperate. Thus, there should be but a minimum of dislocations and once the emergency has passed the relationships effected over these many years will continue to prevail.

SPEAKING FOR THEMSELVES

Mr. E. H. Beardsley, General Manager of Miles Laboratories, Inc., reports as follows: "We have not been confronted with a shortage of production equipment or packaging equipment of any kind. This problem was more or less solved three years ago when we moved from our previous location to a new building. At our old location we were working two shifts. When we moved into the new building it was planned we would be able to take care of a larger capacity in one shift. Equipment was purchased at that time with this idea in mind. We have been in our new location three years and so far have not been confronted with the problem of delivery of machinery for production work."

Mr. H. F. Brownell, Superintendent, McKesson & Robbins, Inc.: "As a general thing, we are equipped to take care of our own distinctive molds of bottles, cans, etc., and we endeavor to standardize on the basic container as much as possible. Of course, at times this cannot be done, as new things have to enter the line and they have to be settled on their own merits. If it involves additional machinery, of course, we have to be patient and take such delivery as we are able to obtain. As an off-shoot of this, we have periods during which unusual production is required to meet certain sales quotas and then we may be relatively quiet on that particular item. In cases like this we have to use our ingenuity and take every possible kind of equipment, whether it is fully automatic or semi-automatic and go to work with the hope of getting as much through as possible even though costs increase.

"Experience has shown us where there is unusual wear and tear on equipment, and we endeavor to have duplicate parts as far as is possible here ready to install when the machine does break. In this connection, we have our own mechanical department and we find it necessary to do things down there which formerly we delegated to machine tool people.

"We are constantly keeping in touch with machinery in all fields as it appertains to our particular business and we endeavor to secure such equipment as meets our requirements and will effect a saving in the final cost of the product."

The following report comes from a confidential source: "We have not been faced with the necessity of switching over any of our completely automatic packaging operations to semi-automatic packaging or manual work. Having foreseen that there might be some difficulty in obtaining equipment, we have provided for enough machine capacity to take care of all our normal requirements. We also do a certain amount of manual work and semi-automatic packaging, which is done not because there is any lack of automatic equipment, but because it is more economic.

EFFICIENCY PLANNING

"We, naturally, have strived to lay out our equipment so that the flow of work and materials will reduce the handling charges to a minimum. All jobs are studied from the viewpoint of eliminating unnecessary motions by the operations involved. It is perhaps needless to say that all operations have been time studied, the time studies being based upon what we consider the most effective operational set-up. We find that this time study information is of invaluable aid in the work of p'anning and scheduling production. Also such studies reduce direct and indirect labor costs to a minimum. However, offsetting this are cost factors which are beyond the manufacturer's control, namely, rising labor and material costs.

"In the matter of closures we are at present using both those made of metal and synthetic resin. The present picture here, as you probably know, is that, while these are still obtainable, it is becoming increasingly difficult and there are increasing delays in getting products of this kind made from either metal or resin. It is our opinion that, should the emergency situation become so acute that materials become practically unobtainable, the answer for the packaging industry will be the use of some type of plastic closure which is as yet not in general use for this purpose.

MATERIAL SHORTAGES

"The question of a limited tin supply, of course, vitally affects manufacturers packaging products in collapsible tin tubes. The logical substitute for a collapsible tin tube is an aluminum tube, which has been in use to a certain extent in recent years. However, this metal is out for obvious reasons. It may be that, should the situation become desperate and tin made unavailable to the collapsible tube manufacturer, the Government may permit the use of lead tubes coated with some protective lacquer for use in products such as toothpaste and cosmetics. This matter we understand is now under consideration by both the Food and Drug Administration and the OPM Division dealing with the tin stock pile, as well as collapsible tube manufacturers. For tooth powder cans we are planning the use of black plate as substitute for tin plate."

Mr. H. A. Sumner, Assistant General Manager, Norwich Pharmacal Co.: "Quite definitely the problem of procuring packaging equipment and packaging supplies has confronted us and the problem has not been solved in its entirety. Of course, so far as supplies are concerned, the only safe procedure is to plan production schedules much farther ahead than is usual. For over a year we have been planning our production four months ahead and this practice has been of great assistance because it allows what so far has been adequate time to obtain materials and supplies. Of course, we always have unexpected bulges on special and new items which are not taken care of by early scheduling.

"In such cases we are experiencing a great deal of difficulty. The difficulty here is not only a question of delivery, but many suppliers are now taking the position that they will not supply unusually small lots of special materials. In fact it seems to be a seller's market and the sellers in some cases are getting very independent.

"In regard to machinery and spare parts, here again we are trying to anticipate our needs at least a year in advance. As far as spare parts are concerned we are carrying unusually heavy inventories. We have several times been faced with the necessity of actually building such spare parts in our own plant because the manufacturer could not make delivery within a reasonable period of time."

Mr. Ned Drucker of Schenley Distilleries, Inc.: "Up to the present time we have not been confronted with situations whereby it has been impossible for us to obtain equipment. It is true at present that deliveries are slower and in some lines may cease altogether for a while; however, we are not now in a position of urgently needing any specific items and, therefore, do not expect any basic trouble from this course. I might add that our program during the last five years has thoroughly modernized all production equipment.

"We normally carry adequate stocks in repair and replacement parts for all our machinery, in addition to which we maintain our own maintenance shops. During the past year we have increased to some extent our backlog of such supplies. However, because of a regular maintenance and inspection program which we have in effect at all our plants, we are well able to anticipate any requirements for replacement parts.

"During the last five years we have worked continuously on a program designed to improve our production processes and to synchronize production throughout our plants. This program is being continued at the present time along the same lines as in the past. Undoubtedly the difficulty of getting new equipment will affect this program. However, the effect will be not to eliminate the program but to throw some of the emphasis from new installations to better use of existing equipment and the elimination of production difficulties due to certain routine methods."

From another confidential source: "We tried some months ago to foresee the present conditions and to fortify ourselves at least for a while.

"The important replacement parts on our machines are made of stainless steel. The weight of these parts is comparatively small and, therefore, does not represent much of an investment in dollars and cents. For this reason we were able to secure a two years' supply of these parts. Our existing equipment is as up to the minute as we are able to keep it by applying new ideas and buying new devices. This procedure is carried on at all times and has become a part of our routine.

PLANNING FOR SMOOTHNESS

"We try to arrange our production runs so that the materials will flow smoothly and rapidly as possible from the very first manufacturing operation through each successive stop until the finished goods enter our warehouse. The cost department keeps a constant check on our operating costs and we are immediately informed of any variation. The increase in price on some raw materials has increased our costs, especially on those products which formerly came from Europe."

Another confidential report: "We have made up our minds insofar as machinery is concerned that we will have to wait on deliveries and be patient. Also that we may have to accept some substitute materials and be ready to renew working parts of unsuitable materials oftener. As yet we are not involved in anything that might be considered essential to national defense although there is a possibility that we may fit into the Medical Corps at a later date. We are looking forward to and working on the problem of substitute packaging material: paper or cellulose for metal capsules, paper labels for metallic foil labels, substitutes for cork and so forth."

Mr. Willis Rabbe, Assistant Superintendent, The Upjohn Co.: "Because of the nature of our product line (typical fine pharmaceuticals, ethically promoted) we have had very few completely automatic packaging operations. All of our operations have been on so-called "lines" of semi-automatic machinery, connected by power driven conveyors as well as individual manual operations. Our batch sizes or runs are comparatively short with frequent change-overs in equipment. Increased volume will permit longer runs with less frequent change-over.

"We have always attempted to keep our machinery in first-class operating condition. Those parts which are "consumable" are carried in stock. Parts which may be broken accidentally are not carried in stock but we have complete machine shop facilities for making repairs. Time factor considered, we find this about as economical as waiting for replacement parts to be received and installed.

"We have attempted a continuous program of modernization. For example, over the past four years all of our labeling machines have been replaced, even to the extent of turning in those purchased only three years ago, for ones of the very latest model. Also, all of our capping equipment has or is being replaced. It is our feeling that modernization is a continuing process rather than one of periodic house cleaning.

"Our plan of operation is to decentralize on the basis of processing requirements, for our condition—1,200 products in twelve or more distinct product types—we do not believe operation integration, as it is usually understood, is either possible or desirable.

"A program of methods and time study was inaugurated two years ago. As yet, we have only scratched the surface. The objective of this program is increase in output and improvement in working conditions."

Mr. R. D. Frick, Plant Manager, Campana Corp.: "We have been confronted from time to time in the matter of special alloys so as to insure absolute protection to not only the various ingredients but the finished product itself. In the past we did not have much difficulty in obtaining various of these alloys, including nickel steel, stainless steel, special nickel alloys, etc., but now, due to the fact that we do not produce a product which is considered as a qualifying one for a priority order, we are beginning to feel the 'pinch.' We have not entirely solved this problem but are giving consideration to it and are checking to find how it would be possible to obtain necessary parts made of plastics or glass, or perhaps special electroplating to provide coatings on various parts where they come in contact with products or ingredients.

"We carry a small stock of essential parts for our automatic machine lines and perhaps this particular stock under the present conditions should be increased. However, for the most part replacements required that can be stocked are merely gears, pulleys, belts or chains. Other parts for our automatic machine lines can either be made by ourselves, made locally or of necessity must be supplied by packaging machinery manufacturers.

"About three years ago we modernized our packaging machinery lines, providing automatic control supply and discharge conveying and elevating equipment to feed packaging materials to and take finished packed materials from our automatic machine lines.

WELL INTEGRATED OPERATION

"We feel that our operation is well integrated in that the entire automatic line from cases of empty containers in the warehouse through blowers, fillers, cappers, labelers, containers and case sealing machines are synchronized. The flow of materials is quite satisfactory, having been recently laid out and designed for that purpose. We have made time studies on both mechanical and manual operations and have found that even with automatic machine lines quite a bit of improvement can be achieved by these studies.

"In general and for the most part we, of course, handle packaging materials on automatic machine lines even though we do have some manual operations as to packaging, etc. We believe that our suppliers of containers, cartons, labels, etc., have been faced with labor turn-over which to a certain degree has affected the standard quality and tolerances of their finished product. As every production man knows, a great many things can be done with hand filling, hand sealing, hand cartoning and wrapping packages. However, when slight imperfections as to contour, tolerances and material creep into packaging materials and automatic machine lines, then there is an entirely different condition presented (*Continued on page 103*)

Out from under the *Bushel*

by ARTHUR H. VAN VORIS

Here's an article written by a man who represents the most progressive and thoughtful element among American retailers. A partner in Van Voris Hardware of Cobleskill, N. Y., since 1916, Arthur H. Van Voris is qualified—by virtue of his quarter century of experience—to present the independent retailer's viewpoint of hardware display practices. His general qualifications as a judge of hardware displays are strengthened by his canny ability to ferret out disadvantages and advantages of packages and displays.

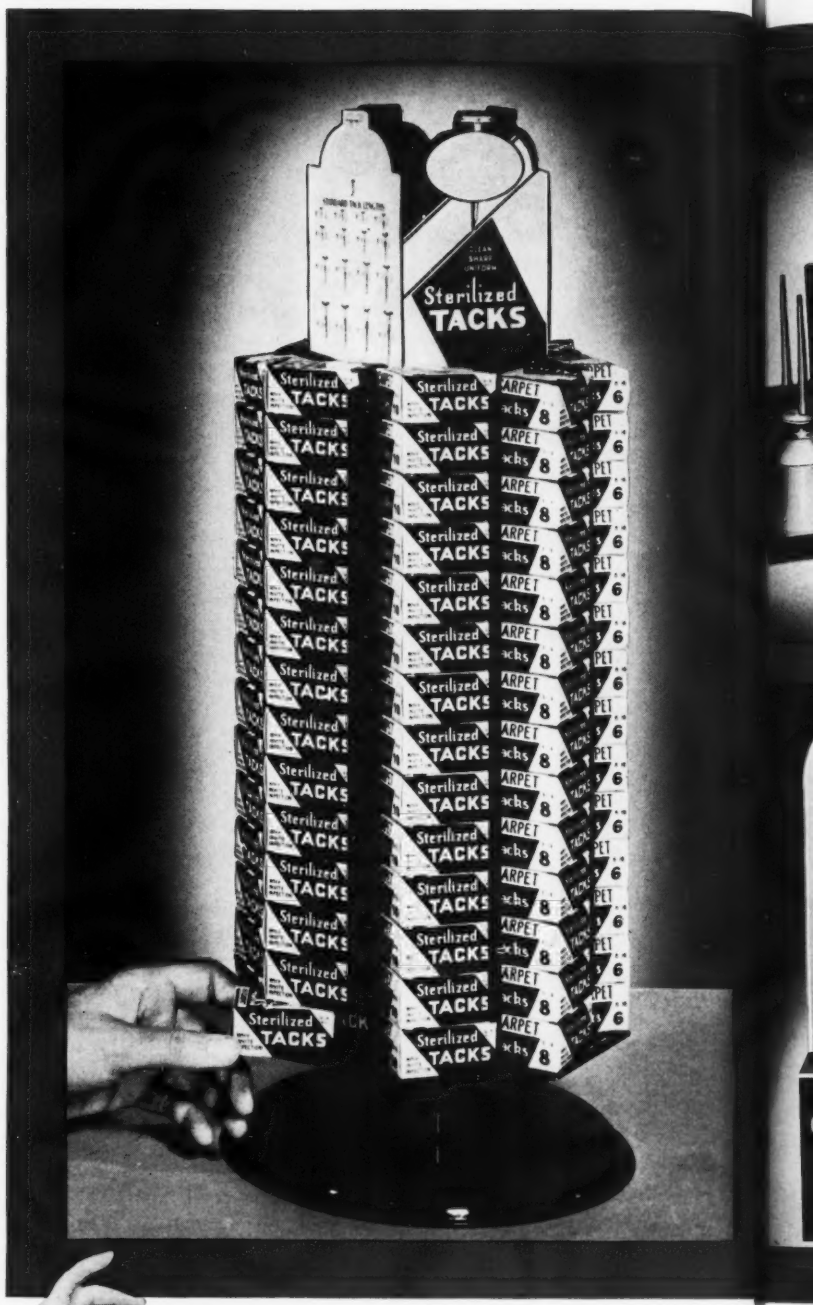


Photo by Ewing Galloway

Noah Webster defined hardware—"metalware, as cutlery, tools, etc." No doubt when the famous dictionary-maker visited his favorite ironmongery, or hardware store of the day, he stood surrounded by pots and pans, kegs of nails, boxes of bolts and screws, all tucked away on dusty shelves and in dark corners—their "light hidden under a bushel." Happily, however, for both customer and hardware merchant, modern packaging and display have brought the light from beneath the bushel.

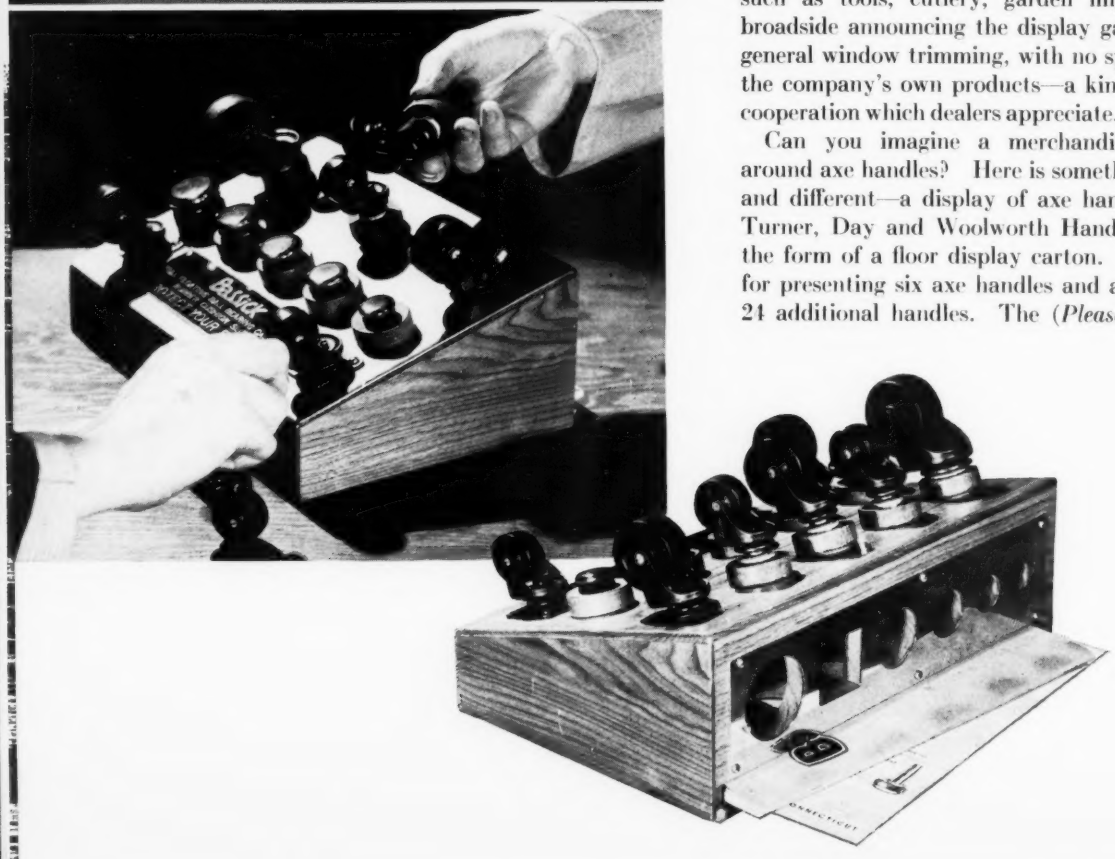
Manufacturers in most industries, including hardware, have manifested constant endeavor to assist the retailer in making more and easier sales by improved packaging and display. Their messages to retailers in trade journals and in direct mail advertising are stress-

ing not alone the manufactured product, but likewise the garb in which it is clad. Today hosts of items in the hardware store are attractively packaged and displayed which only a short time ago were consigned to shelf, drawer, cabinet or box stock arrangement. They were "hidden under the bushel" and had been for a good many years.

Examine with me some of the modern displays and packages which today bring numerous hardware items into the merchandising limelight.

Lamson and Sessions, manufacturers of bolts, nuts, cotters, cap screws and the like, present a table or counter-top open display for bolts and nuts. This enameled steel merchandising display, designated as the "Speedmerchant," is stocked with bolts and nuts most commonly bought by the general public. The bin-type unit permits the customer to help himself and thus saves time for both the customer and the salesclerk. It tends to increase the unit of bolt sales and it utilizes reminder-selling. This display takes bolts from the backroom bins and puts them in the spotlight. It makes them better to look at and easier to buy. It provides the customer with a self-service convenience and the retailer with attractive display and a simplified inventory.

The common tack has been taken out of hiding by W. W. Cross and Co., a manufacturer of sterilized tacks. This company has put its product into an all-metal, revolving display stand. This unit, brilliantly colored, occupies only $7\frac{1}{2}$ in. of counter or table-top



space. The stand is constructed with eight vertical channels. Each holds fourteen packages of tacks and may be re-filled easily. An outstanding feature is the top panel design. Illustrations of the actual tack sizes are presented on this so that a customer may choose desired sizes at a glance. Dealers have reported that this display has helped to increase their tack sales from 50 to 300 per cent.

North Brothers Manufacturing Co., makers of "Yankee" tools, have presented to the hardware trade the "New Handyman Profit Maker," a merchandiser consisting of a colorful set-up counter display on which are mounted three sets of improved drill points. Each set of drill points is packaged in a transparent container, which protects the product and at the same time permits full visibility. A detachable band on the display is included for price changes. The unit also features illustrations to show usage of the drill points.

The Carborundum Co. is assisting dealers this season with an exceptionally forceful display unit for scythe-stones and files. Here again, the product does not have inherent display appeal. A scythe-stone is a commonplace item in the lower price range, but this company has dressed up some of them in smart and handsome store clothes. Their 1941 display consists of five of the most popular scythe-stones. Mounted in a counter display, each item is plainly price marked and clear-cut illustrations show the use for each one. The whole unit is designed to catch the eye of every farmer or household gardner who enters the hardware store.

The Carborundum Co. has also supplied dealers with a fine related product window display which enabled dealers to "pair up sales" by showing allied products, such as tools, cutlery, garden implements, etc. A broadside announcing the display gave suggestions on general window trimming, with no specific reference to the company's own products—a kind of manufacturer cooperation which dealers appreciate.

Can you imagine a merchandising appeal built around axe handles? Here is something distinctly new and different—a display of axe handles sponsored by Turner, Day and Woolworth Handle Co. This is in the form of a floor display carton. The front is used for presenting six axe handles and a reserve bin holds 24 additional handles. The (*Please turn to page 66*)

BULWARK against Time

It's the tough shell of the turtle that protects him through the century or so of his existence. It's the box—the shell of your product—that protects and sells it on its journey to the consumer.

Burt's reputation for producing fine boxes stands behind every one you buy, insures you of a package that will protect your product on its trip to the market and that will stand up and sell after it has arrived.

Burt *automatic* manufacturing of small, round, window and transparent boxes gives quick, quality production of large quantities. Burt's large modern plant is centrally located to give our customers the advantage of quick deliveries —*overnight* to many key centers in the South, East and Middle West.

Consult our design engineers on your box, carton or merchandise-display problem.

F. N. Burt Company, Inc.

500-540 SENECA STREET, BUFFALO, N. Y.

NEW YORK CITY
630 Fifth Avenue
Room 1461

PHILADELPHIA
A. B. Hebeler
P. O. Box 6308
W. Market St. Sta.

NEW ENGLAND
J. Ansell
491 Main Street
Cambridge, Mass.

ST. LOUIS
M. P. Yates
706 Chestnut St.

ATLANTA, GEORGIA
Mr. W. B. Branch
Candler Building

CHICAGO
919 N. Michigan Ave.
Room 2212

CLEVELAND
W. G. Hazen
P.O. Box 2445
E. Cleveland, Ohio

CINCINNATI
221 Walnut Street
Telephone: MAin 0367

NEW ORLEANS
Sydney S. Levy
509 Audubon Bldg.

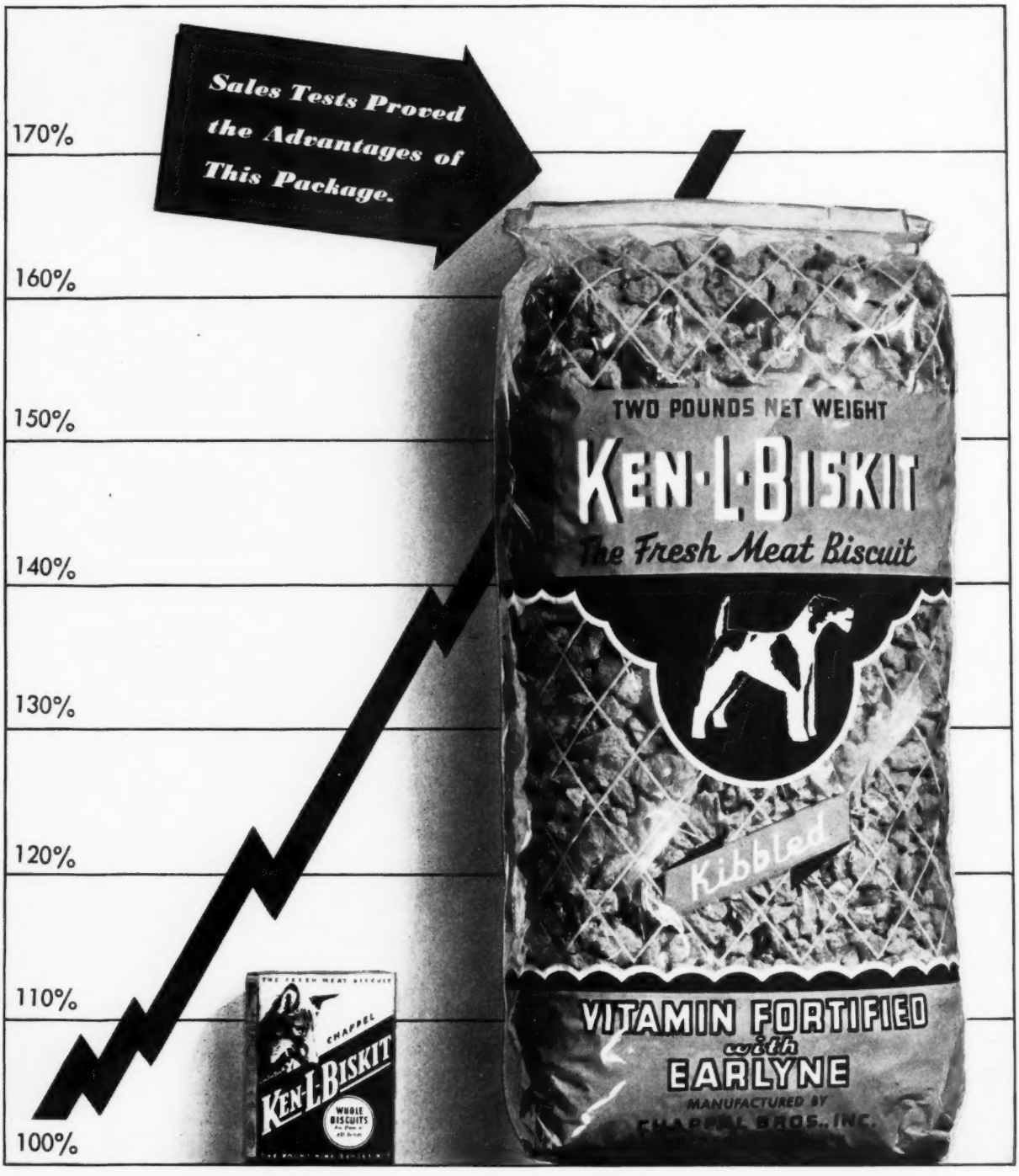
MEMPHIS
W. F. Shepherd
268 Madison Ave.

MINNEAPOLIS
J. E. Moor
3329 Dupont Ave. South

KANSAS CITY
Elmer J. Schwartz
1135 East 66th St.

A. G. Spilker
P. O. Box 126
DANVILLE, CALIF.
(near San Francisco)
Danville 27

CANADIAN DIVISION
Dominion Paper Box Co., Ltd.
469–483 King Street, West
Toronto 2, Canada



☆☆☆ To meet the problems of (1) increased sales volume (2) new retail outlets (3) greater display advantage (4) speedier consumer acceptance (5) faster filling operation (6) trouble-free shipping and storage (7) better protection, Chappel Bros. Inc., uses *DOBECKMUN's* patented *"Pris-O-Matic" bag of double 450 M.S.T. *"Cellophane", printed in red, black, yellow and white. Thereby increasing point of purchase advertising and visibility.

THE DOBECKMUN

WESTERN PLANT – OAKLAND, CALIFORNIA

63% SALES INCREASE WITH PACKAGE BY DOBECKMUN

Chappel Bros. Inc. Opens New Outlets . . . Gains Display Advantage . . . Speeds Consumer Acceptance . . . with Patented "Cellophane" Bags by Dobeckmun.

☆☆☆ How to maintain high nutritional levels for its Ken-L-Biskit at the lowest possible cost, in one of America's most competitive food markets, is the problem that confronted Chappel Bros. Inc., Rockford, Illinois, pioneer manufacturers of a complete line of dog foods. . . . Increased sales volume was the accepted solution — in a market where competitive brands sell down to two pounds for 15c — and where *good* meat ingredient costs average 11 cents per pound — *exclusive of packaging*. . . . Aggressive Chappel Bros. and The Dobeckmun Company took this problem in stride. The former formulated its meat-based product in line with years of laboratory research, long kennel feeding tests and close collaboration with successful dog breeders and leading veterinarians. The latter designed the most effective, most economical, most durable transparent package possible. . . . Together, Chappel Bros. and The Dobeckmun Company conducted market tests. They found the new package a door-opener to super markets. It won drug and department store outlets previously closed to them. Old established retail outlets accomplished far better results than ever before.

Net Result: A 63% sales increase in eight months' time without penalizing ingredient supplier, manufacturer, broker, retailer, customer — or "man's best friend" — the dog! . . . There's a packaging example for other manufacturers in what Chappel Bros. Inc., and The Dobeckmun Company accomplished. Whatever your product, requests for information and prices incur no obligation.

WRITE, WIRE OR PHONE
CELLULOSE FILM
PACKAGING HEADQUARTERS

☆☆☆ 8 DOBECKMUN PACKAGING SERVICES: *"Cellophane" Bags* and *Envelopes*, printed and plain, single or duplex. . . *Printed "Cellophane"* in sheets and rolls. . . *"Zip-Tape"*, machine applied. . . . *"Zip-Wraps"* pre-applied on plain or printed sheets. . . *Holiday Bands, Bags, Wraps*, in stock or custom design. . . *"DOPLEX"* Lamination, soilproof, brilliant, permanent. . . *"Cellophane" Pouches*, printed or plain. . . *"Cellophane" Bread Wrappers*, printed.

(1) •"Cellophane" is a trade mark of E. I. du Pont de Nemours & Co. (Inc.)

(2) •"Pris-O-Matic" is a trade mark of The Dobeckmun Company

COMPANY
3305 MONROE AVE., CLEVELAND, OHIO

(*Continued from page 62*) carton occupies approximately 15 in. by 17 in. of floor space and stands 37 in. high. The merchandiser is an efficient, self-service unit that reminds consumers to buy while in the store and the assortment provides a range of grades and prices to meet varying demands.

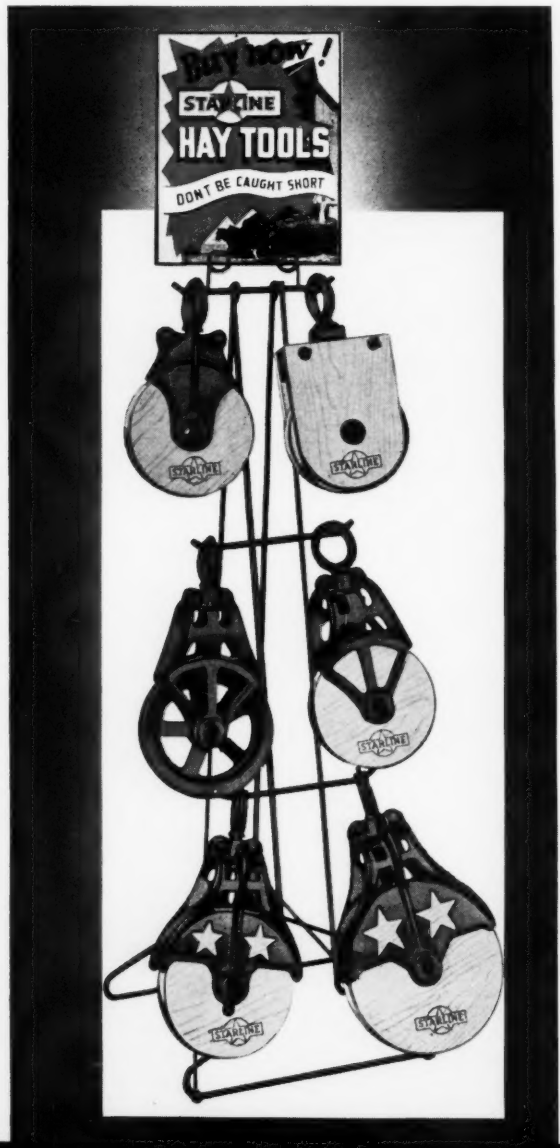
The Bassick Co. asks the hardware merchant for only 8 in. by 12 in. of counter space to present its furniture casters. Casters usually come packed in bulk cartons or in packaged sets of four and, generally, are not regarded as display merchandise, but are stocked on shelves or behind cabinet doors. In keeping with the trend toward bringing the product out in the open where it can be seen by the shopper, Bassick presents a sturdy unit constructed of polished wood with individual sections into which the contents fit. Several different types of casters are mounted on the display block. Each item is easily removable for consumer inspection. The rear of the block provides space for a gauge that checks the size of casters. Here, too, is a compartment into which a catalog and reference card are stored.

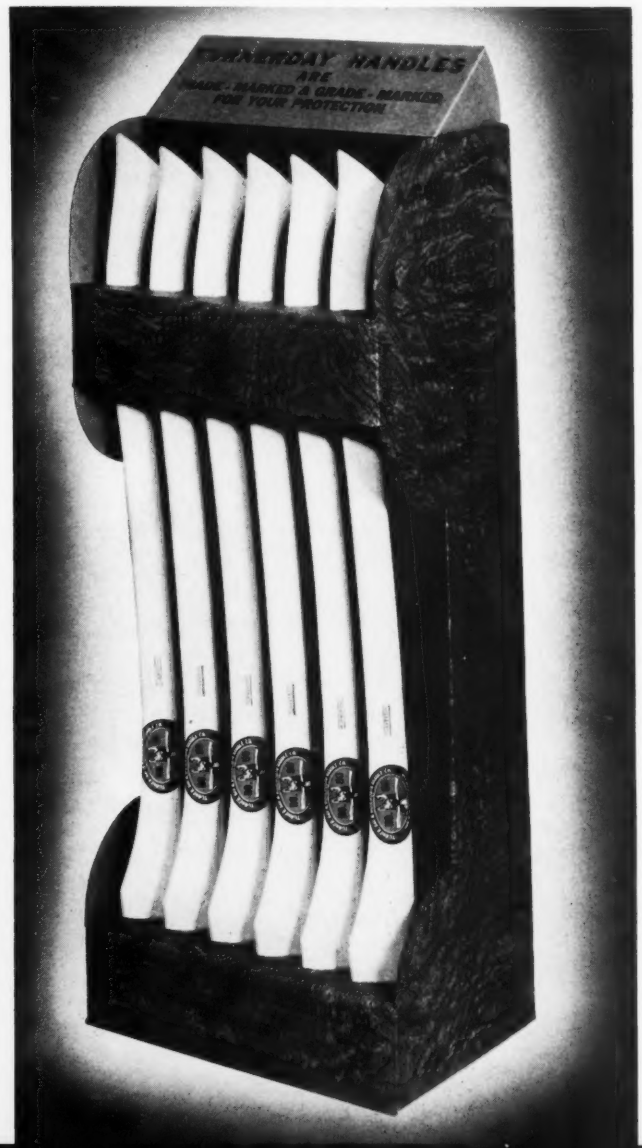
What could be more unromantic than a line of hay-fork pulleys? Dealers were, for many years, accustomed to stock pulleys in the basement, in the warehouse or in some other out-of-the-sight spot. There they stayed until some farmer called at the store and asked for one of them. Starline, Inc., manufacturers of farm barn equipment, have brought this hardware merchandise out into the open successfully and profitably via a display rack supplied to dealers with the purchase of 1 doz. pulleys.

The company pre-tested this display in a restricted territory and found that the sale of hay-fork pulleys was increased 62 per cent the first season over the previous year when no suitable display had been utilized. It was soon discovered that the farmer, wishing his haying equipment to be intact when the haying season arrived, would purchase an extra pulley or two when he found them on display in the hardware store.

Starline formerly shipped pulleys in bundles, wired together. They are now shipping them packed six in a carton to avoid scratching or marring in transit. The modern packaging innovation insures perfect pulleys for display. The display rack and card are shipped in a separate package.

A dispensing oil container is an item which, after purchase, belongs on the (*Continued on page 111*)



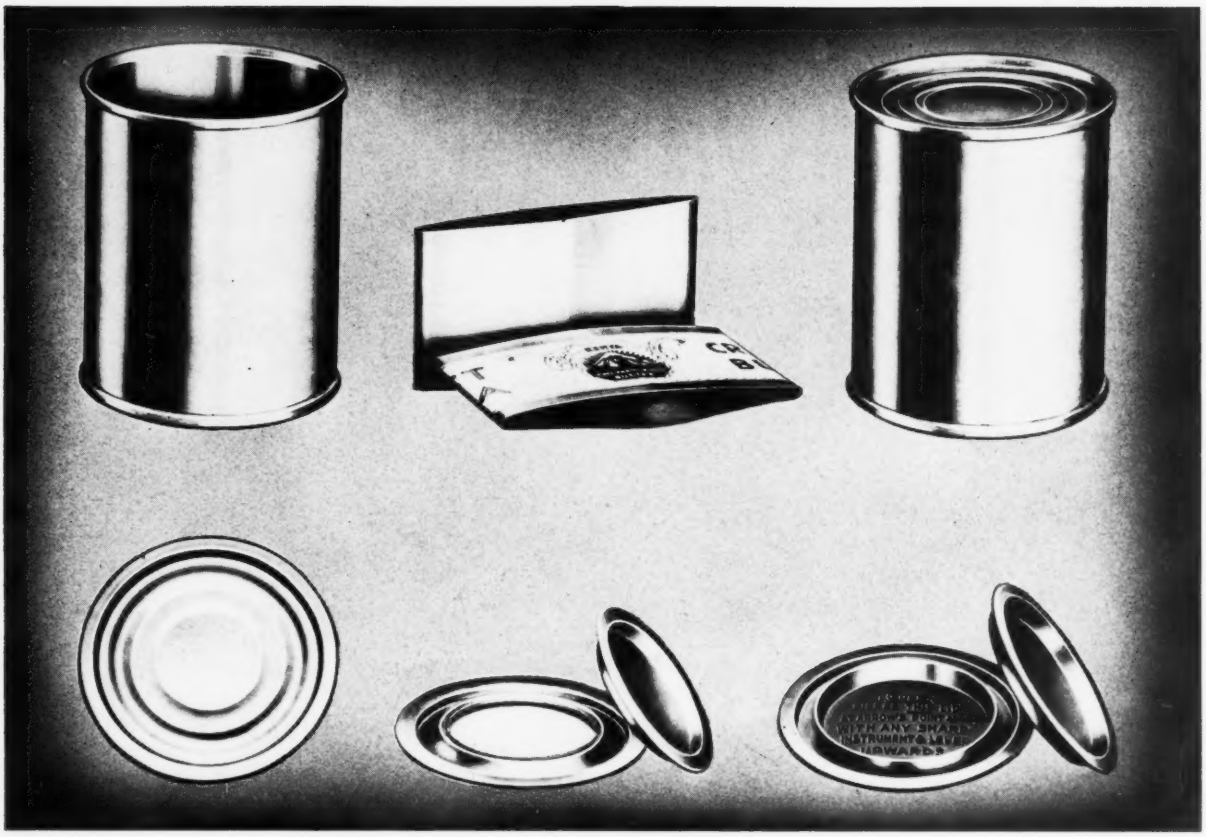


3 of many Leading Products Packaged by "NATIONAL CAN"
POLIDENT
USE DAILY FOR BEST RESULTS
HUDSON PRODUCTS INC.
DR. LYON'S TOOTH POWDER
CONTENTS 2 OZ.
REG U.S. PAT. OFF
MEDIUM SIZE-60+17% OZ. NET
WILSON'S
CO-RE-GA
POWDERED
RECOMMENDED BY THE DENTAL PROFESSION TO HOLD DENTURES FIRMLY AND COMFORTABLY IN THE MOUTH
COREGA CHEMICAL CO.
CLEVELAND, OHIO, U.S.A.

THERE'S much to be said for the appropriate designing, rich color lithography and practical advantages which "NATIONAL CAN" develops to accent display and consumer acceptance. ★ Consult "NATIONAL CAN" on *your* Packaging problems.

NATIONAL CAN CORPORATION

EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK CITY



For export purposes, a British manufacturer has developed a flattened tin can. The can body is cylindrical with side seam properly laid down and soldered. It is then flattened and packed separately from the tops and bottoms which are supplied stamped and lined with sealing compound ready for use. If the can is not processed after packing, the body may be attractively decorated.

Wartime economy

by DENYS VAL BAKER*

In this article a British authority tells how packaging is adjusting itself to conditions imposed by war. Although our hope has been for "business as usual," every forward-looking American business man should be prepared for the shocks and dislocations which may be in store for us.

British packaging and, indeed, the whole fabric of this country's production, distribution, selling and advertising is vitally affected by the government's "Concentration of Industry" plans. American manufacturers, I have no doubt, are anxious to have some preknowledge of a situation which they may possibly face at some future time.

In brief, the present policy is to concentrate production of all goods, other than goods required for the war effort, into a reduced number of factories working full time instead of into many factories working part time, as has previously been the case. These factories will produce the output required for government orders, the greatest practicable export trade and the minimum needs of the home population.

Obviously, this arrangement means that several firms (probably the smaller firms) will have to close down, but the government has laid down conditions to insure, as far as possible, that their good will will be preserved. Where the business of a redundant firm is taken over by a "nucleus" firm, this firm, wherever possible, will manufacture for the account of the former and thus preserve the trade names and the good will. Products so manufactured will be handed over to the wholesaler of the redundant firm for distribution in the usual way. Where such an arrangement is not possible, nucleus firms must make adequate compensation to redundant firms whose businesses they have taken over, although this cannot be done at the expense of the consumer (by raising prices).

Although the government has produced the policy, it

* Managing Editor, "Shelf Appeal."

VPO

VACUUM PRY-OFF CAP

SNAPS OFF!

SNAPS UP SALES!

SNAPS BACK ON!

A TOP VACUUM SEAL! The Crown VPO Cap is a one-piece vacuum closure that utilizes the "top sealing" principle in connection with a special glass finish.

BUT THAT'S NOT ALL! Additional protection is afforded by tiny lugs in the rim of each VPO Cap which hold it on the container with a spring-like grip.

SPECIAL LINER, TOO! The rubber ring liner which CCS developed especially for VPO Caps, assures perfect *vacuum* sealing of every container.

CUTS APPLICATION COST! For straight-line capping, without timing devices, VPO Caps offer the maximum in efficient, economical sealing for hot products. Speed of application is limited only by speed of filling equipment.

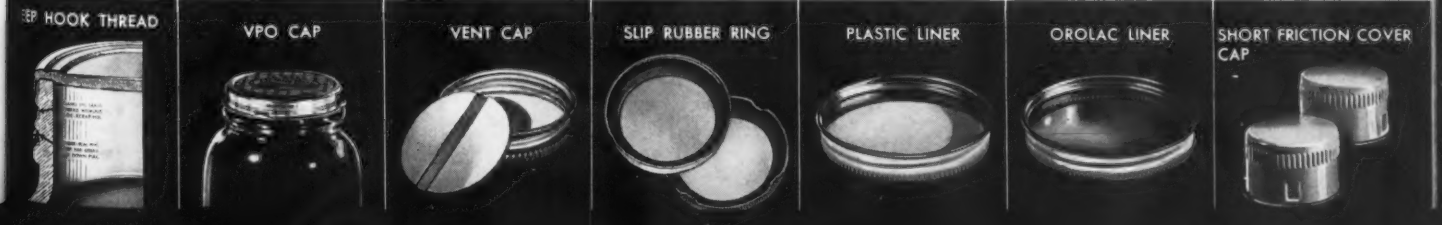
FIRST! The VPO Cap is another closure improvement which CROWN brought you *first.*

WRITE TODAY! Samples, prices and complete information will be sent you promptly upon request.

CROWN CORK AND SEAL CO. • BALTIMORE, MD.

World's Largest Makers of Closures for Glass Containers

7 Closure Improvements CROWN brought you FIRST



is giving industry (i.e., consumer-goods industries) the opportunity to put the policy into practice. Five months is the time limit given, and leaders of the various industries concerned are now hard at work on the "concentrating," some of which may well be taking effect by the time this article appears in Modern Packaging. Such is the swiftness which war conditions impose on trade. Two main considerations have to be borne in mind: first, labor must not be employed in areas where munitions works exist and housing and social services are required for their workers; second, the location of the nucleus firm must be approved by the military authorities. Thus, many of the biggest and most suitable factories are at once ruled out and there is one headache for the organizers of a concentration scheme of this type.

And, of course, there are many other headaches. There is the difficulty of persuading owners of patent rights and formulas to trust their temporary partners with knowledge which would be so valuable when the competitive days of peace return. A nucleus firm which may be ideally situated, geographically, may not have the necessary facilities or machinery to cope with rapid change-overs from one product to another. Then again, if various brands are to be maintained—selling on a smaller scale and, of course, manufactured by one or two nucleus firms only—this means the purchase of small quantities of a larger number of raw materials and the printing of small quantities of package materials. That is hardly an economical arrangement.

A far more vigorous application of the principle of standardization is the most likely solution to most of these problems and the British Board of Trade has already expressed its visualization and approval of such a development. Standardized products and standardized packs can quite reasonably be introduced in a number of the affected trades, such as boots, shoes, textiles, pottery, hosiery and even cosmetics. Manufacturers will work out the most satisfactory standardizations, probably using the advice of the British Standards Institution. For the duration of the war these standardized products will replace separate brand names and will certainly enable the simplest and most economical approach to both production and distribution and marketing. In packaging, the whole emphasis will be on the pack as a serviceable container for the product with little or no regard for appearance and display values. In advertising, too, there will not be the competitive stimulant and advertisements—cost of which will probably be shared by the industry as a whole—will merely have to present a product which has a complete monopoly in its trade.

At the same time, the necessity remains for preserving brand-name values. An example of the probable trend is provided by the hosiery trade, whose leading manufacturers—firms such as Kayser-Bondor, Aristoc, Bear Brand—are planning a cooperative campaign of press advertising. The advertisements will probably comprise lists of the firms' names and trade marks. This policy may be adopted by a number of other trades and I also hear of schemes for joint advertising by "similar" industries (i.e., fountain pens and ink, toothbrushes and toothpaste, shoes and socks). Then, there are a number of the firms whose products are still household words, who are wisely prepared to continue prestige advertising just as long as they are allowed to do so. Kayser-Bondor, for instance, (*Continued on page 106*)

British packagers convert the necessities of their situation into advantages as demonstrated by this ad. Note the text phrasing.

"But I must have SYLVAN FLAKES"
"I'm terribly sorry, Madam. I haven't a packet left."
"But I've got some woollies to wash, and I daren't risk them shrinking or getting out of shape. Are you sure you haven't any Sylvan Flakes?"
"Not a packet in the shop, Madam; the Government have asked them not to make more Sylvan Flakes than they made before the war. And to make the shortage worse, people have found out how good Sylvan Flakes are."
"I'm not surprised. Why, you get half as much again for the same money. I've used Sylvan Flakes from the first, and all my colours are as fresh as new. And I do believe that my hands have been smoother since I started with Sylvan."
"That's what all my customers say —there's nothing in Sylvan Flakes to roughen or redden your hands. Believe me, I could sell twice as much Sylvan Flakes if only I could get 'em. And I'll send a packet straight over to you the minute they come in."
WHY SYLVAN FLAKES ARE ECONOMICAL AS WELL AS SAFE
WITH Sylvan Flakes you actually do get half as much again for your money. Just think of the saving. Colours remain bright, woollies keep their shape and last for years if you use Sylvan Flakes. And there's nothing whatever in Sylvan Flakes to roughen or redden your hands; they'll be smooth and white and young if you stick to Sylvan. No wonder the good housewives of Britain insist on Sylvan Flakes.
SYLVAN FLAKES
USE SYLVAN AND SAVE
Get the Giant Pack 1/-. Other economy sizes 6d. & 3½d.
THOMAS HEDLEY & CO., LIMITED, NEWCASTLE-ON-TYNE AND MANCHESTER

British press advertising expenditure, during last quarter of 1940, showed a drop of 16.43 per cent, compared with the corresponding quarter of 1939. Total expenditure was £3,912,536.

Between March and December 1940, British Govt. advertising amounted to £1,107,426, or 7.88 per cent of all display advertising recorded during those nine months. National Savings advertising amounted to £473,486, Ministry of Food advertising to £280,083.

You can cut your box-sealing labor costs from ⅓ to ½ with this motorized sealer for Scotch Tape.

Applies up to 110 equal length strips of Scotch Tape per minute. Each strip seals instantly on contact—no water required —producing a strong, positive seal that will not dry out or loosen. Available in transparent or a variety of bright colors. Whatever your present method may be for sealing or tying telescope type boxes, Scotch Tape in the new motorized sealer can produce major savings for you.

For complete information, write Department MP, Minnesota Mining & Mfg. Co., Saint Paul, Minnesota.

MADE AND PATENTED IN U. S. A. BY MINNESOTA MINING & MFG. CO., SAINT PAUL, MINNESOTA

Shulton's Desert Flower

When Shulton, Inc., introduced Early American Old Spice toiletries three years ago, it was among the first to forecast the rise of the Americana theme. Last year it rode the crest to an annual volume of $4,000,000 for Old Spice and its companion product Early American Friendship's Garden, added in 1940.

Now it is making package history with Desert Flower. Every item of this new line is packaged in hand-carved, pink translucent plastic. Each of these containers is a permanent dressing table accessory, designed for refills which may be purchased at a moderate price. Together they offer a complete boudoir set including everything from soap to rouge and lipstick, since the company enters the make-up field for the first time with this line.

The company has been working on the perfection of this plastic for two years. Behind it all may be the same vision which prompted the phenomenal success of Old Spice. Desert Flower is definitely a luxury item and relatively expensive. However, during periods of strain and national emergencies people buy luxury items as a means of "escape," yet they buy with an eye to economy. This has been demonstrated by the continued sale of luxury items in England during wartime—and even in occupied Paris. A woman's purchase of Desert Flower is a long-time investment due to the permanency of the plastic containers and the moderate price of the refills. A manufacturer's sale of re-use containers should mean continued sale of refills, yet a saving in packaging materials at a time when there might be machinery and material shortages for luxury packaging.

The plastic is a cast phenolic resin, developed in a pink color by special formula exclusively for Shulton. It is delivered in castings and rods, which are carved, polished and lathe-turned in Shulton's factory. Containers are machined on the inside to give a translucent effect. Closures are polished (*Continued on page 102*)

• Mahogany chest for 1847 Rogers Bros. Silverplate Service (International Silver Company, Meriden, Conn.). Removable covers for lid, main compartment, and drawer made of Clear Transparent Type *Eastman Acetate Sheet* (.010") cemented to rigid cardboard frame. Chest and sheet-plastic covers produced by The Pilliod Cabinet Company, Swanton, Ohio.

The finishing touch for FINE PACKAGES

THE MOST ATTRACTIVE CONTAINERS, designed for years of use, can frequently be made more beautiful and serviceable by the proper application of *Eastman Acetate Sheet* . . . available in three types: (*1*) Clear Transparent; (*2*) Clear Matte; and (*3*) Colored Translucent, in a wide range of lightfast pastel shades.

As a feature of the handsome silverware chest shown above, readily removable covers of Clear Transparent *Eastman Acetate Sheet* protect the compartments from dust and the pieces from tarnish, yet allow full visibility for the easy selection of any service.

Specifications and Fabrication Data

Eastman Acetate Sheet is available in rolls up to 40" in width and any convenient length, and in standard- and cut-to-size sheets. *Clear Transparent Type* is furnished in thicknesses up to .020"; *Clear Matte Type* (matte one side) in thicknesses .003" to .010"; *Colored Translucent Type* (pigment coated one side) in thicknesses .003" and .005"—in a wide range of lightfast pastel shades. All three types of *Eastman Acetate Sheet* can be scored, folded, pleated, fluted, molded, drawn . . . take printing inks without wrinkling . . . can be sewed, crimped, stapled . . . cement with an unyielding bond . . . do not crack or shatter.

• • •

BRANCH OFFICES: *New York*, Eastman Kodak Company, 350 Hudson Street; *Chicago*, Eastman Kodak Company, 1727 Indiana Avenue. PACIFIC COAST DISTRIBUTOR: Wilson & Geo. Meyer & Co.—*San Francisco*, Federal Reserve Bank Building; *Los Angeles*, 2461 Hunter Street; *Seattle*, 1020 So. 4th Avenue. CANADIAN DISTRIBUTOR: Paper Sales Limited—*Toronto*, 11 King Street West; *Montreal*, 1559 Sun Life Building.

Smaller packages for individual products also gain in style and sales appeal when made with *Eastman Acetate Sheet*. And this versatile material can be used to outstanding advantage in counter, shelf, and window displays. Let us send you samples of the type, thickness, and dimensions you need to try it, or the names of fabricators near you. . . . Eastman Kodak Company, *Chemical Sales Division*, Rochester, N. Y.

6,450 lenses re-packaged

Recently the American Optical Co., oldest and largest manufacturer of ophthalmic products, designed new packages for its Tillyer lenses in order to achieve uniformity in design and positive identification of lenses which are distributed exclusively to professional eye men.

To understand the problem facing the optical concern, it is necessary to know that variations in eye defects are so numerous that 6,450 Tillyer lenses of different types and curves are made and stocked to assist eyesight specialists in correcting defective vision. These scientifically accurate lenses are made in single and bifocal vision and are available in three different types of glass: white or regular lenses; Cruxite, a flesh-tinted glass that absorbs ultra-violet rays, and Calobar, a green glass which screens out ultra-violet and infra-red rays on either side of the spectrum.

Over a period of years, the American Optical Co. had added packages of different designs for the various types of its lenses without taking into consideration the family relationship. Finally, it was resolved to adopt a standard design so that uniformity would prevail.

Single vision lenses were packaged in envelopes, while bifocal lenses were packaged in cartons in order to distinguish them from the single vision and because they are somewhat thicker and consequently heavier than the single-vision type.

To distinguish the three different types of lenses, the envelopes for white lenses have printed on their faces a red-orange circle; for Cruxite, a magenta circle, and for Calobar, a green circle. Information as to the corrective power of the lenses is printed on the packages clearly to provide ready identification and to simplify the problems of packaging and taking inventory.

"I know what o-i-l spells!"

B-A-L-B-O spells salad oil to hundreds of thousands of housewives from coast to coast... this product of the Balbo Oil Co., of Brooklyn, New York reaches their homes in spic-and-span cans produced by Crown.

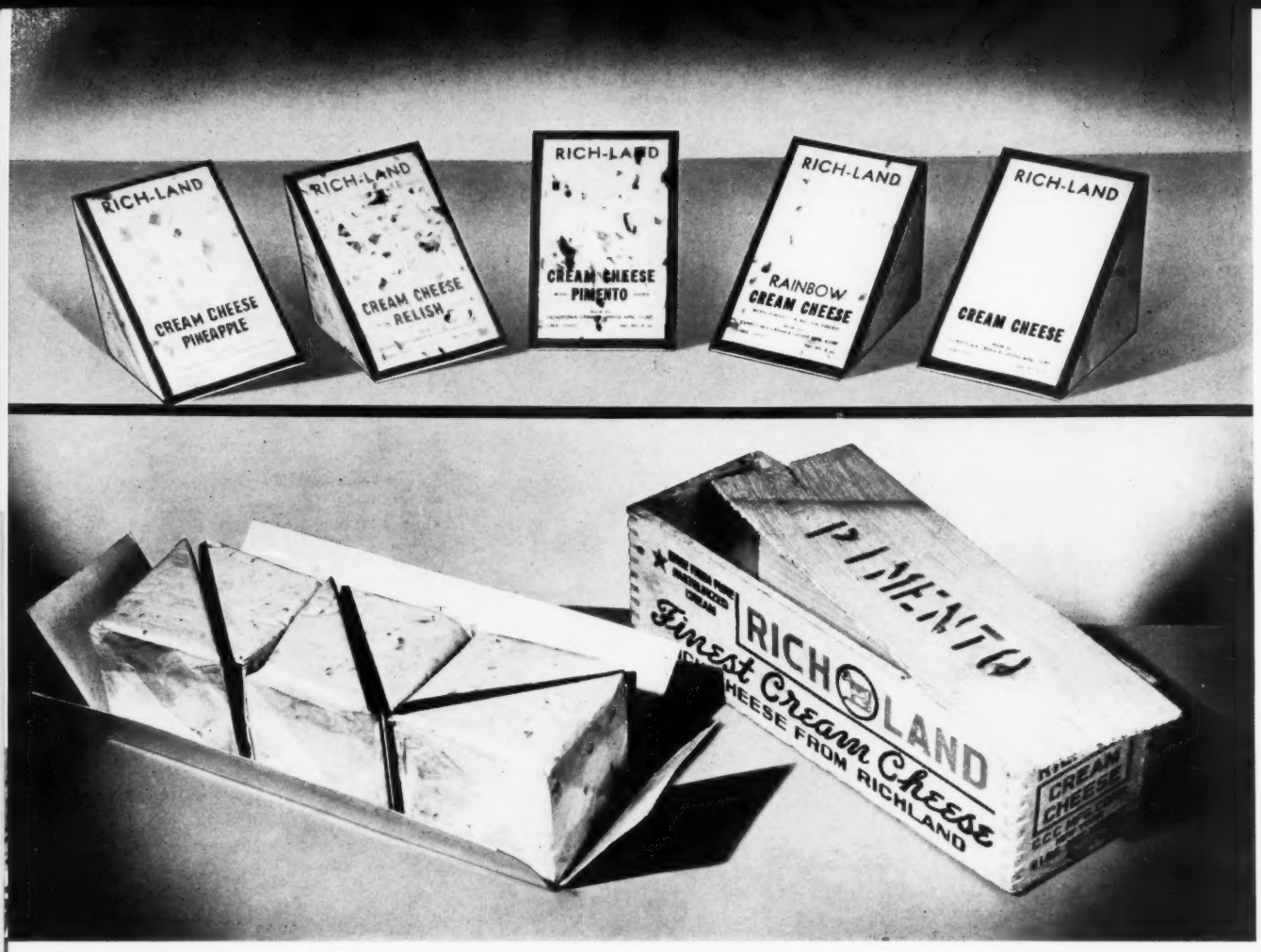
The packaging of salad oils . . . like the packing of every other food product . . . presents special problems. But there's always a happy solution to every problem when the packer meets and discusses his specific requirements with Crown sales engineers and chemists.

This ability to cooperate . . . with interest and with intelligence . . . has played no small part in Crown's rapid rise to third place in a highly competitive industry within four years!

CROWN CAN COMPANY, PHILADELPHIA, PA., *Division of Crown Cork and Seal Company,* Baltimore • St. Louis • Houston • Madison • Orlando • Fort Wayne • Nebraska City

INDEPENDENT AND HELPFUL

CROWN CAN



Fliofilm wraps encase the wedge-shaped cream cheeses in a manner calculated to enhance and protect the product. Each cheese name is printed in a different color. Six of the 8-oz. wedges fit compactly into a wooden box for shipment.

Super-marketing cream cheese

The adoption of a new package and a new packing method have boosted sales of Rich-land Cream Cheese, a product of the Conestoga Cream & Cheese Mfg. Corp. The cheese is wedge-shaped and is wrapped with a pliofilm sheet which is printed in five different colors to identify the five types of cream cheese —blue for the plain cheese, yellow for the pineapple mixture, etc.

The packing process—the hot pack—is one that has been widely adopted for other types of cheese. The cheese is poured in molten state into foil paper lined wooden boxes—the familiar 3-lb. size. As it cools, it sets into block shape. It is then removed from the foil, cut into six 8-oz. wedges, encased in the appropriately imprinted transparent wrapper and re-packed into the wooden box for shipping and sale.

The shape of the package and its size provide excellent display features for super-market selling. The front of the package is kept as free as possible from printing to give full visibility to the product.

The hot-packing process, besides permitting bubble-free filling, has a tendency to pasteurize the cheese. This gives it a longer shelf life (refrigerated), it is claimed, and makes possible delivery to both east and west coasts from a central manufacturing point in Lima, Ohio, without spoilage.

The size of the package—8 oz.—has helped to boost the total sales of Conestoga's product by 90 per cent. The unit of sale is automatically larger and the visibility feature encourages impulse buying. The factory pre-pack permits consumer handling with complete sanitation because of the germ-proof qualities of the transparent wrap.

Conestoga's success has attracted other dairies toward using this type of package. Something of a trend appears to be forming around the $^1/_2$-lb. wedge in the cream cheese field.

Another important development is taking place in a more obscure corner of the field. Bakers' cheese is a by-product of the manufac- (*Continued on page 100*)

ay! If they can draw

Ethofoil

DOW ETHYLCELLULOSE SHEETING

like that,

here's an idea for OUR package"

This transparent display case for Kelton watches, 12 inches in diameter, was made, top and bottom, from drawn Ethofoil by the General Plastics Corporation, Chicago, Illinois. *Ethofoil* was used because it does not lose its toughness after drawing and is economical to fabricate.

The transparent display case for Kelton watches, shown above, is an excellent example of what package makers are doing with ETHOFOIL* (Dow Ethylcellulose sheeting). Made for the Ingersoll-Waterbury Company of Chicago, both bottom and top are drawn.

Your own product can undoubtedly be packaged in ETHOFOIL with the same effective eye and sales appeal.

ETHOFOIL is a transparent sheeting that is notable for its toughness. Drawn ETHOFOIL retains this important characteristic. Toughness is not lost or diminished by the drawing.

Other desirable qualities are: Does not become brittle with age; is not discolored by light; does not crack or break at low temperatures or low humidity; does not become distorted by storage in warm places.

There's as much difference between transparent sheeting materials as there is between the products they help to sell.

Be sure to investigate ETHOFOIL and the practical advantages it offers. For complete information write or wire the Plastics Sales Division of

*Trade Mark Reg. U.S. Pat. Off.

DOW

Working with you for America

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

New York, St. Louis, Chicago, San Francisco, Los Angeles, Seattle

SUPREME COURT COFFEE
SUPREME COURT
COFFEE
A CHRISTMAS CAROL
By CHARLES DICKENS
COLD CREAM
CAKE
AMERICAN CONE & PRETZEL CO.
Alice Bailey's
COCOANUT CUSTARD
Alice Bailey's
JUST OPEN AND SERVE
CHOCOLATE PUDDING
Liberty
1
2
3
4
5
6

Packaging

1 Standard candy box used by Howard Johnson Restaurants with a series of special covers of New England scenes and other covers appropriate for Valentine's Day, Easter and Mother's Day. Lids are changed at will. The historical lids in the background are flint covered and have interesting descriptive matter on their rear faces. The flocked design on the lids shown in the foreground gives a softness and quaintness to the standard base which is likewise flocked. Box made by Cambridge Paper Box Co. from special patented blank supplied by Robert Gair Co., Inc.

2 From Sydney, Australia, comes a gift package which simulates an old edition of Charles Dickens lying open with a book-mark. The embossed printing and gold pyroxylin "page" edges lend an air of reality to the book-type box. Designed and produced by Argent Manufacturing Co., Pty. Ltd.

3 The W. H. Dunne Co. merchandises its Supreme Court coffee in a folding carton designed to provide maximum display and appetite appeal. One face of the carton carries a full-color reproduction of a steaming hot cup of coffee ready to serve, while the other face carries a full-color reproduction of iced coffee. Side panels are given over to detailed instructions on how to make the coffee. Carton by National Folding Box Co.

4 Ice-cream cones are protected against dust and dirt, breakage and handling when shipped and stored in a transparent canister. The can has metal base and lid. A die-cut metal platform fits into the bottom of the cylinder to hold a substantial number of cones. Brand and company name are prominently imprinted on the transparent wall of the can to provide identity for a product heretofore difficult to display and identify. Can by Geo. V. Clark Co., Inc. Transparent sheeting by Monsanto Chemical Co., Plastics Division.

5 "Just open and serve" is the time-saving slogan which can be read on Alice Bailey's dessert cans whether the container is in an upright position or lying on its side. The "two-way" label permits the dealer to form effective mass displays. Cans by American Can Co. Labels by Muirson Label Co.

6 Liberty Pack—an assortment of candies produced by the National Candy Co.—was specifically designed for the Boys in Uniform. Attractively packaged and ready to mail in a corrugated shipping case, the unit makes a perfect gift for soldiers, sailors and marines. Color scheme is red, white and blue.

7 Raspberry Ice cosmetics, prepared by Charles of the Ritz, are shielded against summer heat in pretty versions of the old-time cardboard ice-cream buckets stuffed with shredded cellulose and held with a green ribbon handle. The cologne container is a replica of the syrup shaker from which flavor was sprinkled upon your old-fashioned "snowball" of shaved ice. Dusting powder is housed in a shiny, raspberry pink simulated ice-cream can. Foam Bath comes packaged to do honor to the raspberry ice-cream soda of your childhood. Pink cotton foam edges the pink cardboard "glass" enclosed in a wire frame. Designed by Lawrence Colwell. Cologne bottle by Hazel Atlas Glass Co. Stopper by A. H. Wirz, Inc. Ice-cream carton by Bloomer Bros. Ribbon by Charles Ribbon Co. Dusting powder container by Owens-Illinois Can Co. Foam Bath container by Dixie Vortex Co.

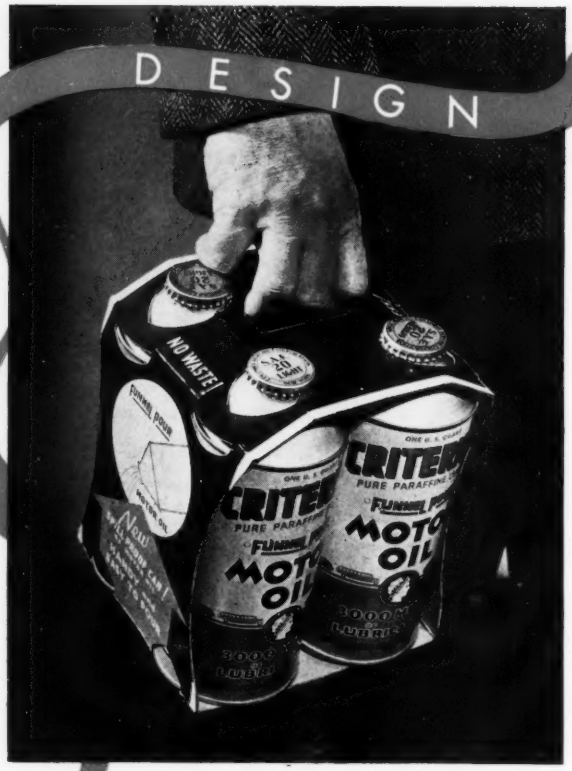
8 New on the market is a line of beverages under the trade name "MacFuddy." Merchandised by Consolidated Beverages, Inc., the beverages are sold in 10-oz. bottles, permanently labeled with three-color designs applied by the applied color lettering process. The MacFuddy trade mark which is prominently featured on each bottle likewise appears on all MacFuddy advertising and promotional material. Bottles by Owens-Illinois Glass Co.

9 The new package for Southern Redi-Cut cake, product of Columbia Baking Co., provides immediate service for the housewife. It eliminates cutting, crumbling, fuss and muss, for the cake is cut in eight even slices placed on a tray, each slice in its own compartment. The cake is covered with a printed cellulose wrapper, held in place by a cardboard collar which snaps on and off. Package produced by Milprint, Inc.

Pageant

7 8 9

DESIGN HISTORIES



Oil Ensemble

Motor oil in a specially designed cone-top can, packed four to a die-cut carrying carton, is the new convenience the Columbia-Bedford Corp. has developed for the sale of its motor oils in grocery stores. This company began experimenting with a new container in 1939, because it realized there was a large demand for something more convenient than the regular flat-top can. Late in 1940, the company introduced a new can with a cone top and a 36-mm. crown closure.

The two most important features of the container are the ease with which it may be opened and the contents poured out. No special opener is required. The cone top acts as a funnel so that the contents may be poured directly into a crank case. There 's practically no waste since the sloped sides of the container allow the oil to drain easily. The carrying carton is similar to those widely used for beverages. In addition to its convenience, it provides an inducement for the promotion of a four-unit sale.

Credit: Can by Crown Cork & Seal Co.

Aid to Jobbers

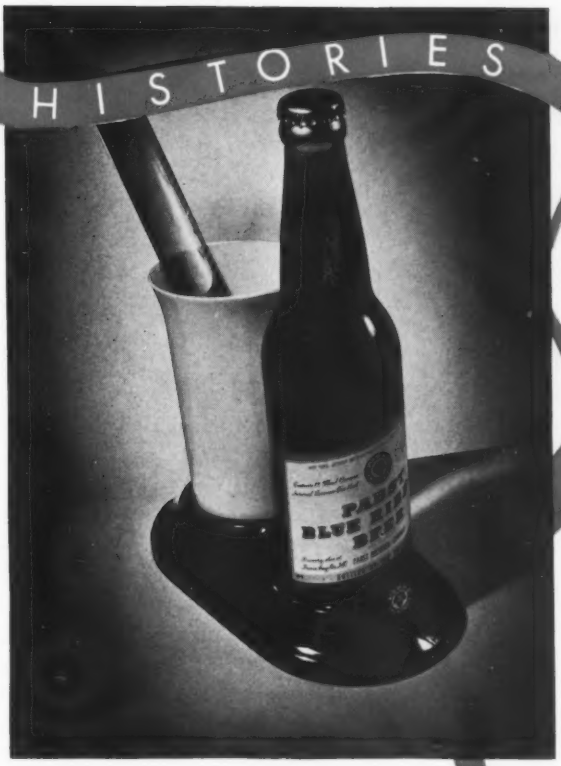
Proof that a trim, space-saver package with good product identification will increase sales to jobbers is the new carton introduced by Manning, Maxwell & Moore, Inc., for their new streamlined Ashcroft gauges. Recently this company modernized its product. At the same time, they took it out of a corrugated double-slide carton and packed it in a new folding carton. Every effort was made to produce a new package to match the good looks of the modernized product.

Since the gauges are a comparatively small product, it was decided that a carton could be utilized to give the product sufficient protection and, at the same time, reduce its overall size and shipping weight. The new design also provides excellent product identification and plenty of space on all its sides for informative data about the product. Jobbers welcomed the package immediately because of these innovations, but most particularly because of the saving in shelf space the new package gave them. The company believes this new package with its space-saving attribute has been one of the leading factors in the 25 per cent increase in their gauge sales since the packages were introduced.

Credit: Carton by National Folding Box Co.

DESIGN HISTORIES

Bar Display



Display space in a bar or grill is at a premium and to get a point-of-sale merchandiser in such places that will "stay put" takes considerable ingenuity. An interesting example is this new counter piece for Pabst Blue Ribbon Beer. It combines cleverly in one unit use value for the dealer and dramatic value for the product in a minimum of space.

In front, facing the tavern customers is the Pabst bottle, a close-range suggestion for bar customers to order Pabst. Behind the bottle is a plastic receptacle to hold the barkeeper's plastic foam scrapper. This useful adjunct assures a center-of-the-counter position close to the beer tap. The base of the unit is molded plastic. The bottle is cemented into the base, but the molded plastic cup is removable so that water may be kept in it for rinsing the scrapper. The standard label has been fired on for permanency.

Credit: Designed by Austin & Austin. Molding material by Bakelite Corp. Molded by Northern Industrial Chemical Co.

"Lead Headquarters"

The W. A. Sheaffer Pen Co. introduces a novel counter merchandiser which makes a complete "lead department" in about a square foot of space. This display is presented concurrent with the company's new line of Fineline leads for all mechanical pencils using short, thin leads. On the front of the case is a complete selling message. The message is indirectly lighted by an electric unit concealed in the top. The back of the case provides a double storage space for a complete assortment of the leads and erasers. The interior of the storage space is also lighted by the same units which illuminate the sales message on the front, so that sales people can see the merchandise easily. Metal was used for the construction of the display and the finish is a baked wrinkle similar to that used in cameras, motion picture projectors and the newer model typewriters.

Dimensions of the unit are $13^{3}/_{8}$ in high, $9^{3}/_{8}$ in. deep and $13^{1}/_{8}$ in. wide. Because of its compactness and attractively lighted message, the merchandiser has been welcomed as a master-reminder, since leads are something consumers are likely to forget unless they are displayed prominently.

Credit: Display case by Crystal Manufacturing Co.

Brush Finish
Ridgelo
CLAY COATED
REG. U.S. PAT. OFF.
BRUSH FINISH
...a more attractive folding boxboard
The lustrous sheen of Ridgelo Brush-Finishes is a distinguishing mark for the finest folding cartons.
No wonder that more and more products are finding better store display and quicker customer recognition through this satin-like package material.
It's the perfect cloak for bottles—jars—tubes—bulk articles. It gives them the uniformity and protection of folding boxes plus superlative standards of beauty, richness, style appeal.
See how attractively Brush Finishes print—reproducing delicate designs, solids, screens, on a practical commercial basis. Use of the correct inks makes this possible. Surely this beautiful package stock merits your investigation.
Samples and complete information sent gladly on request.
LITE FAST COLORS— No Extra ink impression
BRILLIANT GLOSS— No Extra varnish coat
IMPROVED PRINTING QUALITY— Practical quick drying inks
MADE BY THE MAKERS OF
Ridgelo
CLAY COATED
REG. U.S. PAT. OFF.
THE LEADING COATED BOXBOARD SOLD TO INDEPENDENT CONVERTERS
MADE AT RIDGEFIELD, N. J.
BY LOWE PAPER COMPANY

Representatives: E. C. Collins, Baltimore • Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Gordon Murphy and Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Son, Inc., Philadelphia

Carnival spirits

When a man walks into a store for a bottle of whiskey, it's not easy to sell him two bottles of whiskey. But a dealer has a pretty good chance of selling him something else. So reasoned Ben Burk, Inc., distillers of Old Mr. Boston whiskies and gins, as well as a host of specialties, such as brandies, rums, liqueurs and cordials, which have slower turnover than the whiskies and are rarely seen on dealers' counters.

Ben Burk has been searching a long time for a liquor store counter display that would suggest these specialty items and help the dealer make extra sales. Now the search is ended. The company has created an ingenious counter display in the form of a miniature carnival ferris wheel on which the company's specialties—sloe gins, brandies, rums, cordials, et al.—may ride round and round before the customer's eyes.

The ferris wheel stands 30 in. high. Two actual bottles of each product are displayed in metal mesh baskets. A wire collar fits snugly over each bottle to stop the pilferers. The wheel is made of heavy silvered wire and is in perfect balance so that the sales clerk or customer may turn it easily.

On the front of the display, an advertising message reads, "A Delicious Liquor for Every Taste." This is lithographed in maroon, orange and black. The company trade mark—is shown prominently above the copy.

Credits: Designed by Eugene J. Lux and manufactured by Central Wire Frame Co. Lithography on metal by Brooklyn Metal Decorating Co.

This ferris wheel is intended primarily for package store counters, but is equally suitable as a window centerpiece. It stands 30 in. high. The bottles fit into wire mesh baskets. A wire collar fits over each bottle to stop pilferers. The wheel may be turned easily by clerk or customer to suggest liquor specialties.

Display Gallery

1

Old "Cap'n Mark" and his faithful parrot are practically life size in this stand-up cut-out display designed to help Columbian Rope Co. dealers sell more rope. The display is lithographed in eight brilliant colors and is built 54 substantial inches high. Full color miniature cut-outs of this display are available for salesmen. Display by Oberly and Newell Lithographic Corp.

2

Herring that tastes good but doesn't smell up the store or seep oil on other merchandise—that's what Pliofilm packaged herring guarantees. The package is transparent, providing full visibility for the product. No oil or odor can escape, no matter how high or low the temperature or humidity. Smoked salmon for individual servings, pickled fish in brine and frozen fish fillets are successfully packaged this way. Transparent sheeting by The Goodyear Tire & Rubber Co., Inc.

3

This Humming Bird Nylon Hosiery display uses the designs and colorings from Walt Disney's picture, "Fantasia." The flower, the carved figure which revolves in the center, the humming bird's wings and the Centaurette figures on either side are drawn from cellulose acetate sheet, colored on the under side for fog effects. Fabricated by W. L. Stensgaard & Associates, Inc. Transparent sheeting by Monsanto Chemical Co., Plastics Division.

4

"Yankee Clover fragrance of an American summer" is the aromatic theme of the flower basket counter centerpiece for these Richard Hudnut cosmetics. The two-step merchandise stand with white wire basket of artificial clover blossoms sets off the packages. A similar basket is available in a larger size for window display.

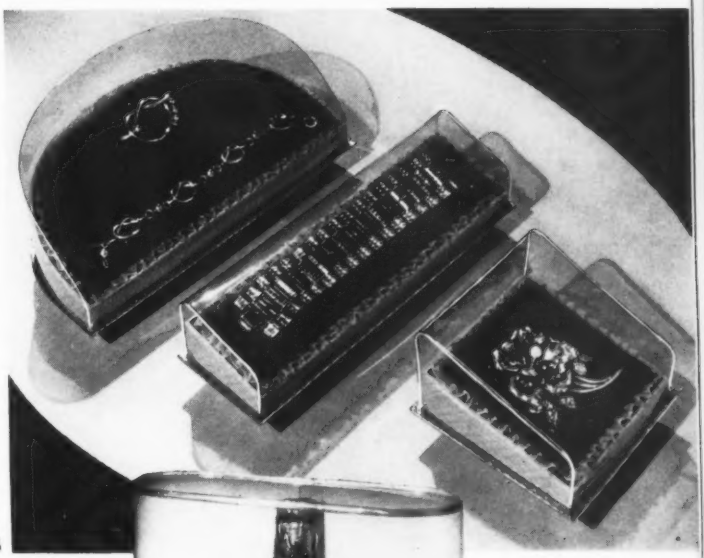
3 4

5 Unusual salesmanship is shown in this demonstrator display for U. S. Royal Master Tires. The unit is mounted on heavy cardboard, lithographed in four colors and has a front die-cut plane with simulated magnifying glass that seems very real with its acetate "lens." Six separate pieces, each illustrating a different cutaway section of a U. S. Royal Master Tire, are attached by a bolt and may be seen under the "lens." The prospective buyer can operate this unit himself by swinging each item aside by its top tab. The photograph at the left shows first tab piece in "viewing" position. The one at right shows six pieces spread. Display by The Forbes Lithograph Co.

U·S·ROYAL MASTER
America's Foremost Safety Tire
The modern safety device that guards a million lives
U·S·ROYAL MASTER
America's Foremost Safety Tire
The modern safety device that guards a million lives

5

6 The charm of Jacques Kreisler jewelry is not only protected but enhanced by rigid transparent hoods through which you can see the jewelry resting on beds of cerise velvet and ruched lace. The sides of the set-up boxes are white waffle board mounted on gold. Transparent sheeting by Celluloid Corp. Set-up boxes produced by Everett Sales Equipment Corp.



6

7 Well-kept luxury is the keynote of this fine old whiskey display case of crystal-clear sheeting, printed with a Gay Nineties dandy driving a white horse. The stand is black and silver-finished metal. The label design has an ancient quality that connotes the "aging" of Schenley. Transparent sheeting by Celluloid Corp. Display by Design Center, Inc.

7

8 Merchandising undergarments in corrugated display cases is a new trick used by Continental Undergarment Co. to introduce its new "Cutees" panties and to promote the sale of "Scamps." Built of blue corrugated board with trade name copy in white, the case provides quick product identification. It is light in weight and easily set up. "Scamps" are shipped in a self-contained display unit with merchandise already arranged. Corrugated partitions in the "Cutees" case hold 24 panties; the two display divisions of "Scamps" hold an equal number. The cases are delivered in "lock-top" corrugated boxes with instructions for setting up printed plainly on the outside. Product of The Hinde & Dauch Paper Co.

8

Museum exhibits packages

Brooklyn Museum sponsors summer show of contemporary art which is part of every-day American living. Bulk of package display selected from Modern Packaging's All-America Competition as most representative in this branch of today's industrial art

Many entries in Modern Packaging's All-America Competition are spending the summer in the Brooklyn Museum as part of a large and comprehensive exhibition called "Printed Art, Pictures and Designs That Work" to be on view until fall.

This show is another demonstration of the Brooklyn Museum's forward-looking policy that museums and art galleries should devote ample time and space to contemporary art—particularly that kind of art which is a part of every-day American living—art which the public takes so much for granted it overlooks the artists who create it.

In doing this, the Museum determined to show what great adaptability the "commercial" artist must have to meet the many specifications of industry—how entirely different his work is from that of the artist who makes a drawing, painting or design simply to satisfy an individual patron.

To keep the scope of the exhibition within bounds, the collection is confined to work that is not complete until it comes off a power press. Also, only work done by the artist's hand was included, which naturally eliminated photography.

To make the show possible and to select material, the Museum called on George Welp, manager of the promotion department of the Interchemical Corp.; Edward A. Wilson, advertising, magazine and book illustrator, and Charles A. Breskin, publisher of this magazine. A group of students from Pratt Institute in Brooklyn, under the direction of James R. Patterson, had charge of the actual arrangement of the show. Laurance P. Robert, director of the Museum, also worked with this committee. He was assisted by Theodore Starr, Jr., the Museum editor, and Arthur H. Torrey and Tay Hohoff, in charge of the Museum public relations, who suggested this type of exhibition and did all the labeling of it.

The packaging section of the exhibit gives an idea of the art the public sees on store shelves, in homes and in business. The committee believes it will be a surprise to many Museum visitors to find out that toothpaste and beer containers and hundreds of other items of merchandise need an artist's help to attract attention and to please the eye and hand after purchase. Packages were of particular interest to the committee because they not only involve two dimensional illustration and design, but third dimension as well.

Modern Packaging's All-America Competition was selected for the bulk of the packaging display as being representative of outstanding development in this field during 1940, since it was impossible to include every package which the jury thought was well designed. When a certain familiar type of object was not represented, additional items were procured to show the great breadth of the field in which "pictures and designs work."

All displays of the exhibit are arranged to show the steps in the production of the finished piece of art from the time the artist receives the order, submits his rough sketches, process drawings and finished work, through the various stages of the printing process until the item becomes a completed package. This type of display demonstrates clearly the careful planning both artist and manufacturer of packages must do before the final product is ready for the public.

Four other divisions of the show illustrate the various steps of production in other fields of commercial art. For example, the three basic printing methods—letterpress, intaglio and planographic—are illustrated by stages in magazine production.

In addition, the exhibition includes outstanding work in display advertising, poster, newspaper, magazine and book illustrating, printed decorative accessories and lithographic fields.

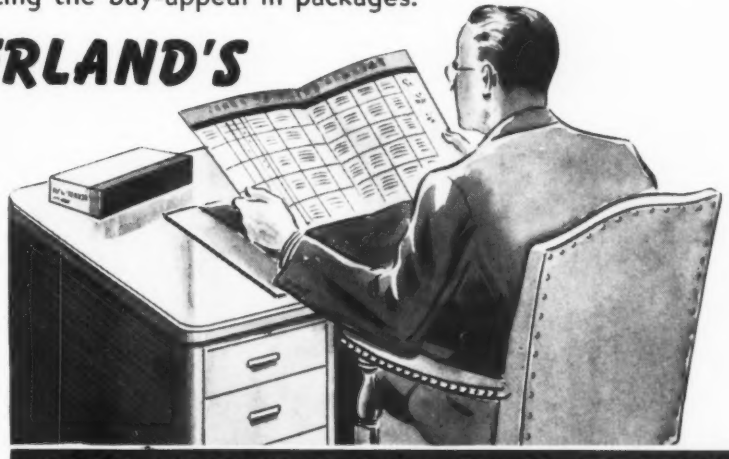
THE FATE OF YOUR PACKAGE IS IN THEIR EYES!

THE TOUGHEST TEST your package has to pass is before the "supreme court" of the buying public. There's no "appeal" from the consumer's decision on the vital question: *"To buy or not buy?"*--but there *IS* a way of determining in advance the probable chance your package has for outstanding sales results. Sutherland--producer of America's most diversified line of paper containers--has formulated a practical "yardstick" for evaluating the buy-appeal in packages.

Send for SUTHERLAND'S PACKAGE DESIGN CHECKING CHART

Now--with this new Sutherland chart which has won the approval of prominent packaging experts--you can judge probable consumer reaction to your package, using a "point system" of evaluation. The important selling "characteristics" of package design have been included in a carefully planned tabular form which makes the chart easy to use.

Sutherland's long experience in designing packages that sell merchandise has been fully utilized in preparing the chart. Simply send this coupon for your copy. There is no cost or obligation.



Sutherland

CLIP COUPON AND MAIL TODAY

SUTHERLAND PAPER COMPANY, Kalamazoo, Mich. **Dept. M-6**

Gentlemen:

Kindly send me your Package Design Checking Chart.

Name _____

Company _____

Address _____

City _____ *State* _____

Top: Cartons to simulate cigarette and tobacco packages. Used in jumbled groups of 50 or 100 units for mass window display. Courtesy National Folding Box Co. Center: Dummy to simulate nine sales packages in open display carton and giant dummy of individual sales package. Courtesy The Richardson-Taylor-Globe Corp. Right: On one side, this carton is a giant dummy. On the other, the carton simulates a display container of standard-size sales packages. Courtesy Robertson Paper Box Co., Inc.

Dummy cartons for window display

In the April issue of Modern Packaging appeared a study of giant cartons—over-size replicas of standard containers designed especially for window display. Closely related to these are the standard-size dummy cartons which are widely used for display purposes. Both types find their origin in the use by retailers of standard packages for display purposes. This practice sprang up many years ago, very largely on the retailer's own initiative. It was, however, limited in its scope by a number of factors.

In the first place, many types of merchandise are not suited to prolonged exposure under the hot sunlight of a store window. Second, soilage and fading are accelerated under window heat and sunlight and dealers were hesitant to expose merchandise to these hazards and thereby take the chance of reducing the salability of the item after its use for display purposes had been completed. Third—and perhaps the governing reason—is the fact that dealers do not desire to tie up expensive merchandise for window display purposes when other alternatives are available.

That other "alternative" was first discovered by manufacturers who supplied dealers with extra cartons. These were the standard cartons used in packing merchandise. It became the practice to ship these in the flat with sizable orders of merchandise in the hope that the dealer would utilize them in window display.

It was hope not unfounded, but it was quickly discovered that this was a rather expensive method of procedure and that means were available both to minimize the cost and to facilitate the use of such cartons by the dealer. Manufacturers quickly realized that window display cartons were designed to look like the standard package, but did not have to be constructed in a manner identical to that of the standard package. They, therefore, turned to the utilization of multiple cartons. These were single carton structures, designed to resemble a group of individual carton packages when erected and placed in the window.

A wide variety of these structures have been developed, ranging from the simplest strip of cartons (see Norforms packages in illustration, page 90) to more complicated structures such as those utilized by White Laboratories, Inc., in the promotion of Feen-a-mint (see illustration, opposite page) and by Ex-Lax, Inc. (see illustration, opposite page). In both these cases, a single large carton is designed to simulate two things. One side of the structure simulates an enlargement of the standard package; the other represents a display box holding layers containing nine each of the standard sales package.

In all these cases, dealer receptivity is increased by simplifying the problem of erecting the containers. The Norforms strip of cartons, or any similar device, for instance, reduces the number of erecting operations to one-third or less. In other words, it takes no more effort on the part of the dealer to erect the long simulation of three Norforms cartons than it does to erect a single standard-size carton.

One of the industries making the widest use of

Ingenious construction forms two Eno packages hinged together to facilitate pyramid arrangement. Carton simulates actual wrap on sales package. Two sizes shown: one knocked down, the other erected. Courtesy The U. S. Printing & Lithograph Co. Additional dummy tobacco and cigarette cartons. Note imitation tax stamp on Lucky Strike package. Courtesy The Richardson-Taylor-Globe Corp.

dummy cartons is the tobacco trade. Display cartons holding ten individual packages are frequently made in dummy form, with the top face of the carton simulating the top row of inner containers. In many instances, these cartons are provided with integral easels, price tags and other display accessories.

To simulate packages (which are not cartons) in their sales-package form, numerous unique carton structures have been developed. A number of these are shown in illustrations on pages 88 and 89. Here the carton structures have been deliberately shaped to resemble closely the package with which the consumer is familiar. When used for mass window display of 50- or 100-unit cartons in a tumbled mass an extremely realistic effect is achieved.

One recently developed type of carton, incorporating several of the features heretofore named, is that adopted by J. C. Eno (U. S.), Ltd. This company links together two packages to simplify the dealer's display erecting problem. It realistically simulates its wrapped package by an ingeniously constructed, devised carton structure. And it utilizes both standard size and giant size cartons to achieve a varied and attractive effect.

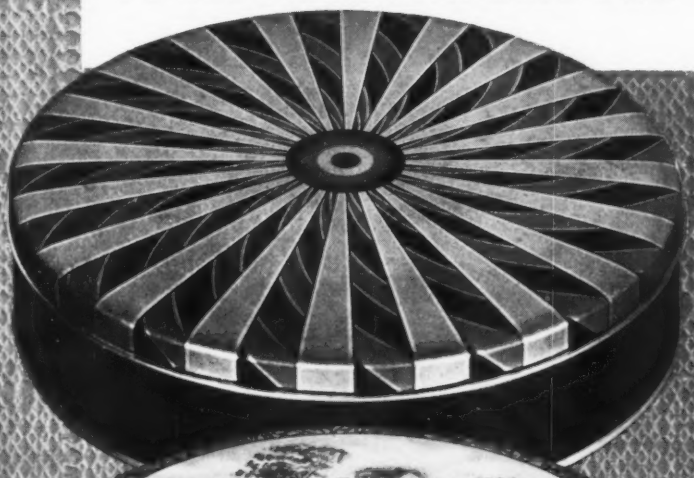
Neither dummy cartons nor giant cartons can be relied upon to form the main basis for most window display campaigns. They do, however, provide a most useful accessory for other forms of window display. They are particularly advantageous in that they provide flexibility for the display and make it easy for the display installation man or the dealer to adjust a display to any size of window. In a small window, a few dummy cartons would be utilized with a standard central display unit. In a larger window, the same standard unit could form the central scope of interest. An increased number of dummy cartons would simply be required to fill out the extra window space. If intelligently arranged, this added quantity of cartons will definitely enhance the appearance of the window.

Left: Multiple dummies used by Norwich Pharmacal Co., a single Norforms package, a triple package and one carton simulating 24 Unguentine packages. Simple tools for an infinite variety of display. Courtesy Robert Gair Co., Inc. Below: Dummy open cigarette cartons. Note price tag space on Raleigh dummy. Knock-down shows easel construction. Courtesy National Folding Box Co.

COLORS ON METAL PACKAGES

- GOLDEN AS THE SUNSHINE....
- DELICATE AS SPRING FLOWERS...
- STRONG AS THE STORM CLOUDS...
- COLORFUL AS A RAINBOW....

TO SELL MERCHANDISE FOR YOU



HEEKIN *Lithographed Cans*
WITH HARMONIZED COLORS
THE HEEKIN CAN CO., CINCINNATI, OHIO

U. S. patent digest

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 10 cents each.

Adhesives

ADHESIVE COMPOSITION. H. F. Bauer, J. V. Bauer, & D. M. Hawley (to Stein-Hall Mfg. Co., Chicago, Ill.). U. S. 2,238,767, April 15. A remoistening adhesive made up of an incompletely dextrinized root starch converted to a solubility of 3% to 50% in water at 75° F., a viscosity of 15 to 400 seconds and a dextrine content of 55%, with 3% to 30% of urea, 1% to 5% borax and 1% to 10% of glycerol. A coating of this composition forms dried flexible coatings which when moistened possess strong adhesive properties, good tackiness and set rapidly.

ADHESIVES FOR THE MACHINE FABRICATION OF LAMINATED PAPER PRODUCTS. J. G. Vail & C. L. Baker (to Philadelphia Quartz Co., Philadelphia, Pa.). U. S. 2,239,352, April 22. A quick-setting adhesive for high speed operations made up of a stable suspension of dispersed clay in an aqueous solution with an alkali metal silicate having a ratio of 2.5 to 1, to 4 to 1 of silicon dioxide to sodium oxide. The clay content shall be less than 20%, a filter test of 4 cc. to 15 cc., and a viscosity of 50 to 500 centipoises.

Applicators, Daubers

BOTTLE CAP & APPLICATOR. E. Kirmes, London, England. U. S. 2,235,453, March 18. A screw cap for a container, the shell of said cap carrying a flexible stopper in the center of which is a wick extending far beyond the stopper into the container.

COMBINATION CONTAINER & APPLICATOR. Stanley Lowen, New York, N. Y. U. S. 2,236,240, March 25. A combined container and applicator for cosmetics comprising a two-part case adapted to hold a supply of the cosmetic and being removable from the other part, constituting the cover and having a longitudinal partition dividing the interior into two compartments, one to receive the cosmetics when the parts are interfitted and the other the applicator.

COSMETIC APPLICATOR. E. J. Smith, Elyria, Ohio. U. S. 2,237,847, April 8. A cosmetic applicator consisting of a porous resilient applicator material through which a fine powder may pass in uniform quantities throughout the surface area from one side. Another porous cloth parallel to the first spaced an ample distance to provide a powder-housing compartment between with rubber lip portions for refilling with powder.

Bags

REINFORCED CARRY BAG. G. W. Poppe (to Equitable Paper Bag Co., Inc., Brooklyn, N. Y.). U. S. 2,239,856, April 29. A carry bag having front and bag walls and a closing flap at the mouth of the bag foldable downwardly along a definite fold line, tongues cut from the bag walls hinged at their upper edges. The tongue folding over the flap is passed through the openings of the bag walls and folded back. The hinge portion of the flap tongue coincides with the hinge portion of the wall tongues in the folded back position of the flap tongue.

Bottles & Jars

TRANSPARENT CONTAINER. T. G. McGirr, Brooklyn, N. Y., & T. B. McGirr, New York, N. Y. U. S. 2,235,963, March 25. A container with transparent side walls crimped at the base to a turned or spun circular disk with folded edges. The body is cylindrical, then converging to conical form ending in the neck and mouth, the upper edge of which is turned in.

MILK BOTTLE. L. A. Gammill, Santa Barbara, Calif. U. S. 2,239,092, April 22. A one-piece receptacle for milk made from any moldable material, the inner contour of which forms two compartments connected by a narrow throat apparently to permit the separate pouring off of the cream layer formed.

Boxes & Cartons

DISPLAY CONTAINER. J. D. Clarke (to Chicago Carton Co., Chicago, Ill.). U. S. 2,236,749, April 1. A receptacle comprising a single sheet of paper board shaped and provided with fold lines to form a bottom member, an integral back wall bent upwardly, an integral front wall connected to an inside front wall part and bent out and downward into overlapping relation thereto. A continuous side wall extending upwardly from the periphery of the bottom member, including wings extending laterally and in overlapping relation to portions of laterally extending side wall parts.

Cans

DISPENSING DEVICE. P. K. William (to J. B. Williams Co., Glastonbury, Conn.). U. S. 2,234,151, March 4. A new type of dispensing device in the cap of a metal container for the regulation of the rate of discharge of powdered and granular solids.

Caps, Closures & Corks

BOTTLE CAP. A. Robinson, Roxbury, Mass. U. S. 2,237,162, April 1. A cap for a colored finger nail polish bottle shaped like a finger nail. A disk element colored like the polish in the bottle having a similar shape, but slightly smaller at the rounded end. This disk is placed over one's finger nail to determine how that color would look on same.

Envelopes

CARRY BAG. G. W. Poppe (to Equitable Paper Bag Co., Inc., Brooklyn, N. Y.). U. S. 2,239,857, April 29. A paper bag having front and rear walls, a bottom flap extending from the front wall and folded over the rear wall to close the bottom of the bag. A top flap extending from the rear bag wall and folding over the mouth of the bag to close same, locking tongues cut from the bag walls to be folded into recess of the closing flap which has been folded over to close the bag mouth.

Machines

MACHINE FOR OPENING AND ORIENTATING SPOUTED CONTAINERS. R. W. Forrer & F. E. Gilbert (to Ohio Salt Co., Wadsworth, Ohio). U. S. 2,239,556, April 22. A device for handling spouted containers prior to filling with means for automatically opening the spouts and arranging the container to the desired position for filling and handling.

MACHINE FOR OPENING THE SPOUTS OF SPOUTED CONTAINERS. R. W. Forrer (to Ohio Salt Co., Wadsworth, Ohio). U. S. 2,239,556, April 22. An apparatus for the opening of the spout of spouted containers from closed condition in contact with the spout carrying wall to the opened position. It includes a rotative member for positioning the carton opening to align the open spout with a filling nozzle.

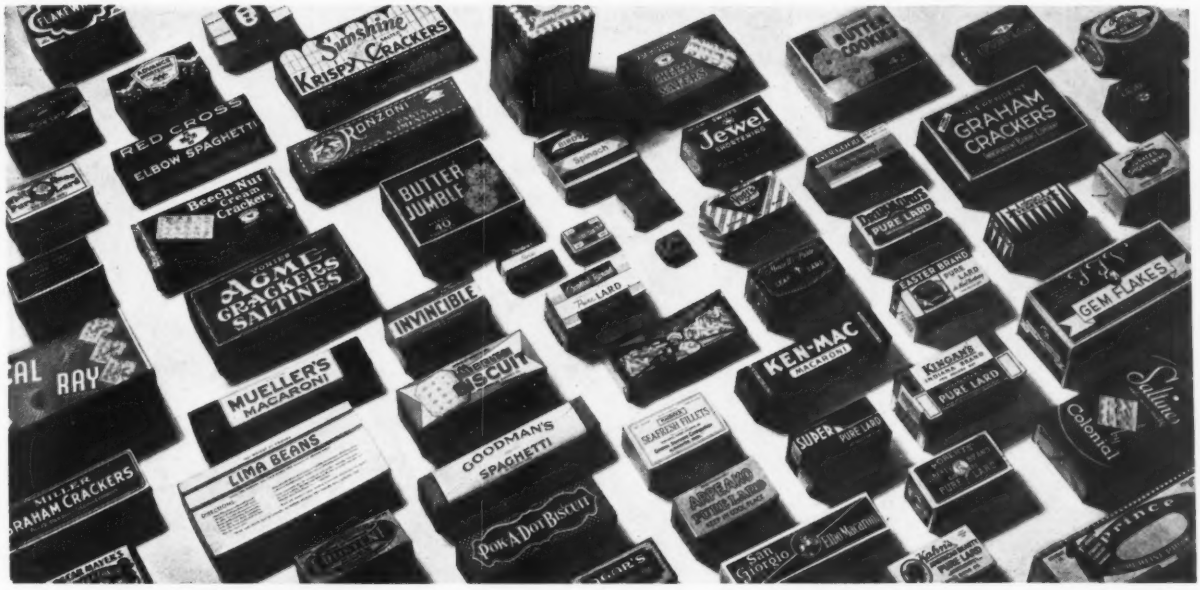
VACUUM PACKAGE SEALING MACHINE. S. H. Berch, Beverly Hills, Calif. U. S. 2,235,394, March 18. A package sealing machine containing a mold which is placed in a flexible filled package, the mouth of which is sealed by forming a straight seam entirely across the top of the package. The abutting faces are sealed together by a pair of folding fingers. These fingers drop down against the side walls of the package which are folded along the median line of the package. The side walls are held in

(Continued on page 110)

LET'S *Stop* THE *Camera* FOR AWHILE

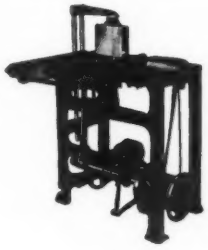
. . . AND *Look* AT *Some* OF

America's Most Famous Packages

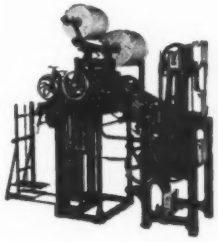


Successful merchandising besides several other necessities requires an attractive, economical package which can be marketed at minimum cost. From results experienced over a period of years these and many other progressive companies have found the die cut "Peters Style" carton the answer to their packaging problem.

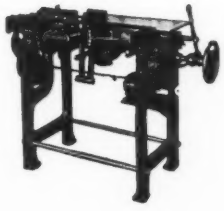
This PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up 30–40 cartons per minute, requiring only one operator. Can be made adjustable for several sizes.



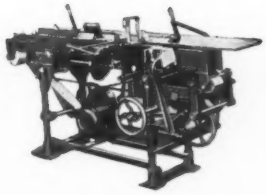
This PETERS SENIOR CARTON FORMING AND LINING MACHINE EQUIPPED WITH AUTOMATIC CARTON AND LINER FEEDING DEVICE is capable of setting up cartons at speeds up to 60 per minute, requiring no operator.



A PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE like this will fold and close 30–40 cartons per minute, requiring no operator. Can also be made adjustable for several sizes.



For automatically closing cartons without the services of an operator, this PETERS SENIOR CARTON FOLDING AND CLOSING MACHINE can be used to handle up to 60 per minute.



We will be pleased to recommend equipment to meet requirements. Send us a sample of each size carton you are interested in handling for analysis and suggestions.

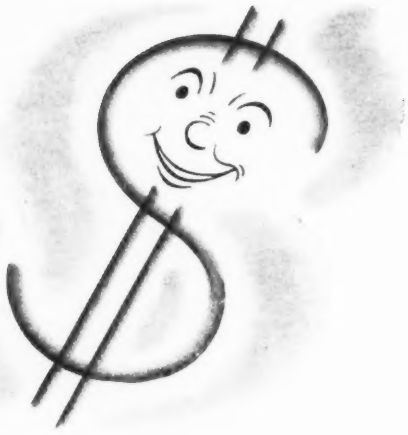
PETERS MACHINERY CO.

4700 Ravenswood Avenue, Chicago, Illinois

Making the Dollar Sign Smile—

on the SALES sheet

and COST sheet



It's no mere coincidence that so many "star sellers" are wrapped on our machines... The answer is to be found in the wide scope these machines offer in *package improvement*—the many types of packages which they can produce, the unlimited choice they afford in selection of packaging material, and the perfect manner in which they adapt the package to the requirements of the product.

But that's not all. Manufacturers have found that our machines are "penny-pinchers" as well as "sales-boosters"—an important thing these days. They make a perfect wrap with the minimum of material, and in most cases use this material in roll form, saving up to 20%. Require little supervision, saving labor cost. The high speed at which they operate and the small amount of floor space occupied result in top production per square foot.

In going after package improvements, it pays to keep your eye on the *cost sheet* as well as the *sales sheet.*

CONSULT OUR PACKAGING CLINIC

PACKAGE MACHINERY COMPANY, Springfield, Massachusetts

NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO

Mexico, D.F.: Agencia Comercial Anahuac, Apartado 2303

Buenos Aires, Argentina: David H. Orton, Maipu 231 Peterborough, England: Baker Perkins, Ltd.

Melbourne, Australia: Baker Perkins, Pty., Ltd.

Just a few of the many products wrapped on our machines.

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Equipment and Materials

NEW DEVELOPMENTS IN PACKAGING MACHINERY · METHODS and SUPPLIES

SINGLE EDGE BEADER

A new machine for beading of sheet or roll plastic material up to .020 in. in thickness has been developed by the Taber Instrument Co. Designated as the R-70 Single Edger, the unit is of the continuous feed type where the sheet plastic is automatically gripped by a traveling conveyor and moved through an elec-

trically heated draw die where the temperature is precision controlled and indicated on an all-metal dial thermometer.

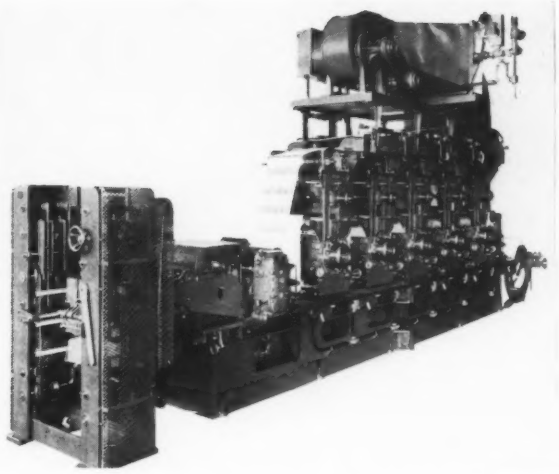
Standard equipment on the R-70 Edger is a die for producing a $^{3}/_{32}$-in. diameter bead. The same die can also make a $^{1}/_{8}$-in. diameter bead with a square corner by means of a simple change of part of the sectional die. Interchangeable dies are available to produce a $^{1}/_{16}$-in. bead.

The production rate is claimed to be 40 to 60 ft. per minute, depending upon the gauge and character of the material used in the operation. A slide gauge is provided for the smaller blanks, but it can be removed when large pieces or continuous materials are used. Material in any width from $1^{1}/_{2}$ in. up can be handled by the unit.

FIVE-COLOR PRESS

A five-color rotogravure printing press, which prints a maximum web width of 16 in., has recently been completed by the Champlain Corp. The unit is well adapted for printing labels, wrappers or cartons.

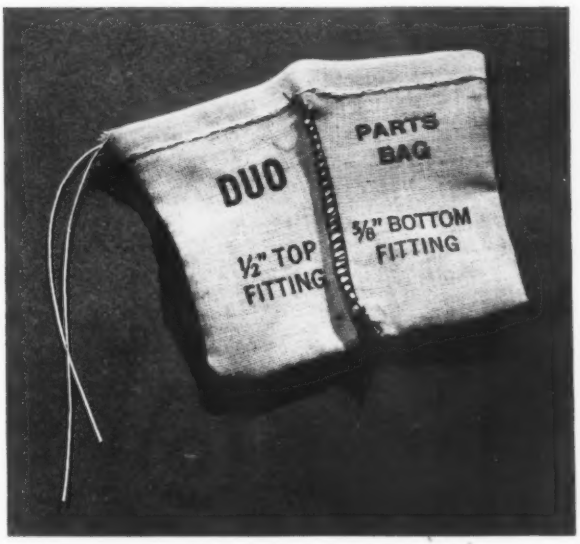
The press consists of five standard printing units, a rotary sheeter, stacker delivery, reel carrier and pull and feed units. The five printing units may be used for printing either five colors or four colors with an overprint spot gloss. The rotary sheeter and slitters, which are easily adjusted to various lengths and widths, fabricate the printed web into the desired size. By assembling a rewind or punch on this press in place of the rotary sheeter, the printed result may be delivered in rolls or as died out, scored and stripped carton blanks. Ink fountains are the Weiss-Speedry fully enclosed type, a patented feature of all Champlain gravure presses. These fountains, it is claimed, allow more highly volatile solvents to be used for rapid drying and insure constant circulation of the ink.



The sheeter is reported to operate at speeds averaging 300 cuts per minute. At this rate, with three impressions across the web, 54,000 finished wrappers or labels per hour are delivered.

COTTON BAG

The Ames Bag Machine Co. has developed a new type of cotton parts bag for industrial use. The bag is available with two or more compartments sewed into the cloth. It is designed for use where two or more parts of any kind must be shipped together, but with some protecting wall between them. The bag is well adapted for shipping or mailing bearings, springs, small gears,



nuts and bolts and the like. Bags are available in any size or shape, with any number of compartments and come in three general types. The mailing bag is a sack with drawstrings and an address tag. The parts bag has only drawstrings and is used primarily to prevent loss of small parts. The envelope bag has an envelope sewed into one of its seams.

Plants and Personalities

C. S. SHOEMAKER

S. W. PUTNAM

The Dow Chemical Co., Midland, Mich., has announced the appointment of Sherman W. Putnam, Special Products Sales Head, to the position of Assistant General Sales Manager and Clayton S. Shoemaker as Manager of the Plastics Sales Division. Mr. Putnam has been associated with Dow for the past 22 years. Mr. Shoemaker, formerly Cellulose Products Division Manager, has been a member of the company's sales personnel since 1937.

Lincoln Jones has been appointed Director of Research of the Point of Purchase Advertising Institute, Inc., New York, N. Y. The Institute is currently inaugurating a program of display research which is being worked out in cooperation with the Display Committee of the Association of National Advertisers, under the chairmanship of Carleton Healy, Advertising Manager of Hiram Walker, Inc., who is a member of the Board of Directors of the Institute. Lloyd L. Grisamore is President and Edward T. Sajous is Executive Secretary of the Point of Purchase Advertising Institute.

R. J. Lindquist, formerly Chief Auditor of the Reconstruction Finance Corp. in Washington, D. C., has been elected Vice President and a Director of Reynolds Metals Co., Richmond, Va.

The attendance at the spring meeting of the Society of the Plastics Industry held at the Homestead Hotel, Hot Springs, Va., May 4–6, was the largest in the Society's history. The formal business program which was received with enthusiasm while a departure from the scheme of previous meetings set a standard and a precedence for the future. It also indicated the plastic industry's serious-minded attitude toward the defense effort.

In addition to transacting the routine business of the Society directors and officers were elected for the ensuing fiscal year. They are: Henry J. Kasch, Kurz-Kasch, Inc., Chairman of the Board; Ronald Kinnear, Niagara Insul-Bake Specialty Co., President; E. C. Maywald, Chicago Molded Products Corp., Vice President; William T. Cruse, Modern Plastics, Secretary-Treasurer. Directors are Donald H. Dew, Die Molding Co.; Charles J. Romieux, American Cyanamid Co.; Frank H. Shaw, Shaw Insulator Co.; H. S. Spencer, Durez Plastics and Chemicals Co., and E. A. Stillman, Watson Stillman Co.

This business program included addresses by Glen O. Smith, lawyer, of Cleveland, Ohio; Lt. Col. K. F. Adamson, Ordnance Dept. U. S. Army; James A. Lee, Chemical and Metallurgical Engineering; N. J. Rakas, Rubber and Plastics Laboratory, Chrysler Corp.; Dr. D. P. Morgan, Director of Division of Priorities, O.P.M.

C. H. Avery, Eastern Sales Director of the Carton Division, The Gardner-Richardson Co., Middletown, Ohio, has been transferred from Middletown to take active charge as Eastern Sales Manager, with headquarters in New York.

New Jersey Machine Corp., Hoboken, N. J., has announced the removal of its Chicago branch offices to 325 West Huron St.

Gummed Tape & Devices Co. has announced the removal of its executive offices, plant and warehouse to 1318–1320 Sixtieth St., Brooklyn, N. Y.

Monsanto Chemical Company's Plastics Division, Springfield, Mass., has officially opened a large new plant for the production of Resinox plastic molding materials. The opening of the new facilities makes the Monsanto operation at Springfield the largest single plant for the production of plastic raw materials in the country. In addition to Resinox, six other major plastics are being produced here. The event was attended by a group of magazine editors, newspapermen, public officials and officers of the company, brought to Springfield in special cars from New York and other points.

The added Resinox capacity is particularly significant in view of recent developments in the defense program. In early February, Edward R. Stettinius, Jr., announced impending shortages in the supplies of certain strategic metals such as aluminum, magnesium and zinc and suggested to manufacturers that replacement materials, including plastics, be given further consideration. Since that time hundreds of manufacturers have been working with technical engineers in the plastics industry on details of redesign. A number of important parts are scheduled for early production.

Essentially two main operations are carried out in the new plant. One is the reacting of phenol and formaldehyde in large steam jacketed vacuum kettles with catalysts. From this reaction liquid resin is poured to cool and harden. Rolls, grinders, mixers and blenders where fillers, coloring matter and other ingredients are worked in, convert the resin into molding compounds which are supplied to plastic molders who fabricate them into finished articles and parts for thousands of different uses.

Oscar Caperton Huffman, a Director and a former President of Continental Can Co., Inc., New York, N. Y., died May 5 at the age of 64. In 1903, Mr. Huffman organized the Virginia Can Co., remaining as its President until 1916. In 1908 he moved to Cincinnati, where he established the United States Can Co., which he also headed as President. In 1928 the United States Can Co. was merged with Continental Can Co., Inc., and Mr. Huffman was appointed Vice President. In March, 1930, he was made President of Continental, resigning February 1, 1940, to become head of the Executive Committee. At the time of his death he was a Director of the company.

NOW PNEUMATIC'S "Package within a Package"

INSURES

PRODUCT FRESHNESS & FLAVOR

Pneumatic's New *DOUBLE PACKAGE* offers food manufacturers an opportunity to doubly insure the lasting freshness and flavor of their products. It's a tight package within a tight package and costs no more than conventional lined cartons.

The *Double Package* is not only sift-proof but is also highly resistant to moisture vapor transmission when the inner bag is made from many of the new coated, waxed, and laminated paper stocks now available.

The Double Package introduces new possibilities in the retail package field. An ideal container for:

Powdered Milk	Confectioners Sugar
Dried Fruits	Prepared Flour
Pudding Powders	Individual servings of Cereal
Gelatin Desserts	Tea and Coffee

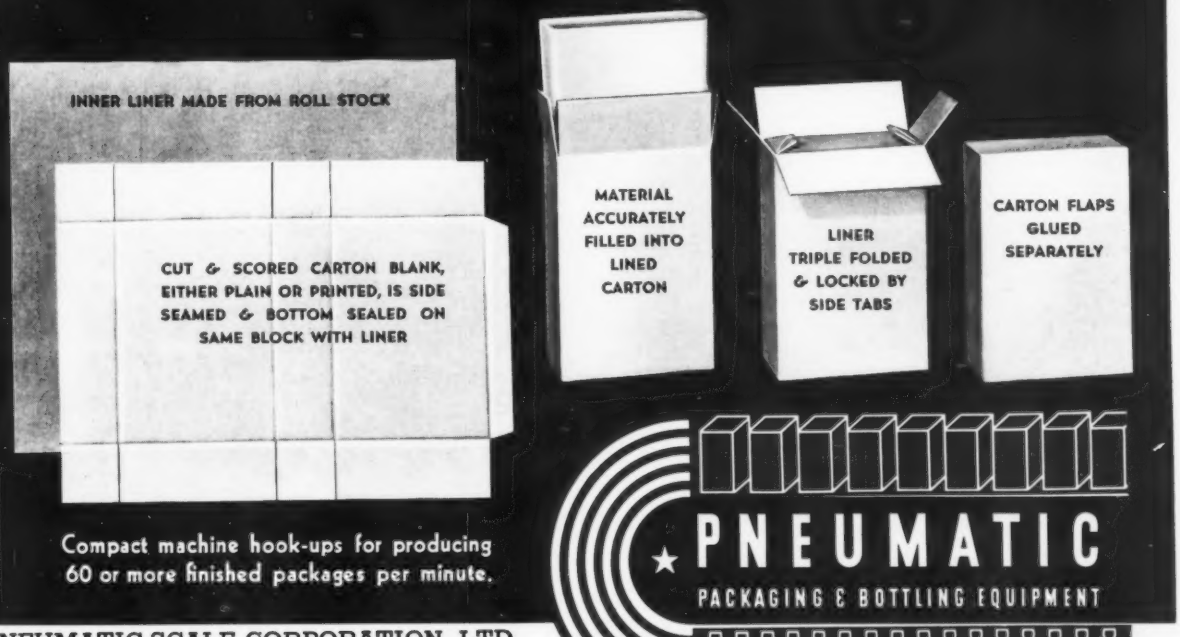
Numerous other products.

Send for a sample package today!

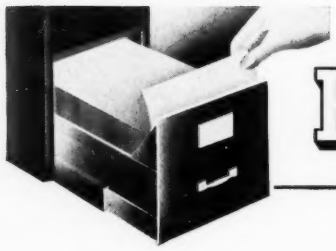
Highlights in the construction of the bag liner in Pneumatic's Double Package:

1. Only one side seam.
2. Top may be closed by folding once, twice or three times.
3. Heat sealed top closure if desired.
4. No "slack fill" problems—liner fits snug in carton.
5. Easy opening top with reclosure feature.
6. Guaranteed sift-proof.

HERE IS THE WAY THE DOUBLE PACKAGE IS MADE


INNER LINER MADE FROM ROLL STOCK
CUT & SCORED CARTON BLANK, EITHER PLAIN OR PRINTED, IS SIDE SEAMED & BOTTOM SEALED ON SAME BLOCK WITH LINER
MATERIAL ACCURATELY FILLED INTO LINED CARTON
LINER TRIPLE FOLDED & LOCKED BY SIDE TABS
CARTON FLAPS GLUED SEPARATELY
Compact machine hook-ups for producing 60 or more finished packages per minute.
★ PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

PNEUMATIC SCALE CORPORATION, LTD.
71 Newport Ave., North Quincy, Mass.
Branch Offices:
NEW YORK · CHICAGO · SAN FRANCISCO · LOS ANGELES



For Your Information File

A new guide for canners, wholesalers, distributors, label manufacturers and all others who deal with the problem of labeling canned foods for the consumer market is now available. This is a bulletin issued by the Labeling Committee of the National Canners Assn., Washington, D. C., covering suggestions for the design of descriptive labels for canned foods. A 4-page illustrated folder, it treats of the principles of descriptive labeling which will adequately and accurately describe goods to the consumer beyond the description required by law.

Supplementing the bulletin, the Association is also making available to the trade individual "Label Data Sheets," giving complete information for the labeling of specific foods. Label Data Sheets have already been prepared for such commodities as canned peas, tomatoes, lima beans, green and wax beans, asparagus, corn, apricots, peaches, pears, potatoes and apples. N.C.A. expects eventually to provide this supplemental service for virtually every canned food commodity.

"The Frozen Food Industry," by Harry Carlton. (Published by the University of Tennessee Press, Knoxville, Tenn.) For an activity nearly a generation old, there is a surprising scarcity of references in book form in the frozen food field. Consequently this book will be welcomed by anyone interested in that industry.

The author has apparently done a thorough and painstaking job of assembling and classifying useful information, much of it in statistical form. The book has a logical and clear outline, the first three sections dealing with distribution, production for freezing and processing operations, while a fourth section is a miscellaneous pocket for statistical and other material. Chapters of particular interest are those on freezing methods, processing methods and packaging.

One has the feeling that here is a large number of subjects for one small book to cover. Typographically, the book leaves something to be desired—for long or intensive study, which it will doubtless receive—the small font may prove trying. Nevertheless, the book will find a real place for itself; the author is to be commended for his treatment of subject matter which is undergoing such rapid changes.

If you are doing business, or planning to do business, with the Army, Navy or other departments of our Government, arm yourselves with the Indexes of Specifications. These list the specifications for every single separate article purchased by the Army, the Navy and the Executive Departments. They are known, respectively, as "Index of United States Army and Federal Specifications Used by the War Department," "Index of Specifications Used by the Navy Department for Naval Stores and Material," and "Federal Standard Stock Catalog, Section IV, Part 1, Federal Specifications Index." These books are all printed by the United States Government Printing Office, Washington, D. C. The Navy book is free, the Federal book costs 15 cents and the Army book 25 cents. From them the specifications of any item can be ordered and manufacturers may acquaint themselves with what is demanded of any article.

The B. F. Goodrich Co., Akron, Ohio, has issued a six-page bulletin on the "Manufacture of Rubber Printing Plates." The bulletin summarizes the processes involved in successful rubber plate making and deals specifically with the materials and methods developed by the company's technical and research staffs for the commercial production of rubber plates. Taking up the subject step by step the bulletin first gives detailed information on the selection and installation of needed equipment, discusses various types of matrices in common use in the rubber plate field and how they are made. The processes involved in molding the rubber plates are described with complete directions on how the job is done successfully.

"More Than Meets the Eye," a new brochure distributed by Interchemical Corp., will be of interest to packagers for its informative review of recent development in the field of decorative and protective coatings. A portion of the brochure deals with chemical coatings used in connection with printed containers, wrappers and decorated cans. The chemical coatings discussed include printing and lithographic inks, gravure inks, industrial finishes, metal decorating materials, textile colors, pigments and raw materials, coated fabrics and various office and artist's supplies. Also stressed is the widespread use of chemical coatings in every-day living.

The Dow Chemical Co., Midland, Mich., has recently issued a convenient swatch book showing the various grades of Ethofoil 610 the company manufactures. The booklet—pocket size—not only contains a small sample of each gauge of ethyl-cellulose sheeting, but is an aid to the person ordering such materials, since in addition to other specifications, each sheet contains informative material about the physical properties of the plastic and what it may be used for.

"What Are the Best Selling Colors?" is the title of a booklet released by the Eagle Printing Ink Co., New York, N. Y. In an effort to strip color of any esoteric mysteries, Eagle's Color Research Department surveyed a wide variety of American industries to ascertain color preferences. The results are presented in this folder. Some 20 industries were contacted, including the plastics and machinery fields.

"Art Directors' Nineteenth Annual of Advertising Art," (Published by Longmans Green & Co., New York, N. Y. 232 pages. $5.00). In this volume are all the pictures and designs (including the prize-winners) chosen from over 6,000 entries to be placed in the 19th Annual Exhibition of the Art Directors Club. Fifteen men, eminent in art, advertising and graphic arts have contributed articles. Miniatures of complete advertisements show how each illustration was used and locate by page number each picture. Special indexes list all artists and designers, advertisers and advertising agents whose work is represented, with the page numbers on which it appears and the index of artists gives the address where each may be reached.

Designed by L. W. Frohlich, the 19th Annual of Advertising Arts is the largest annual published to date. It is easy to use and has 350 illustrations in color and black and white. It is a valuable current national record of the pictures and designs held most effective in helping sell the goods on which free American industry is built. As such, it becomes the standard resource for the most effective ideas in contemporary advertising art.

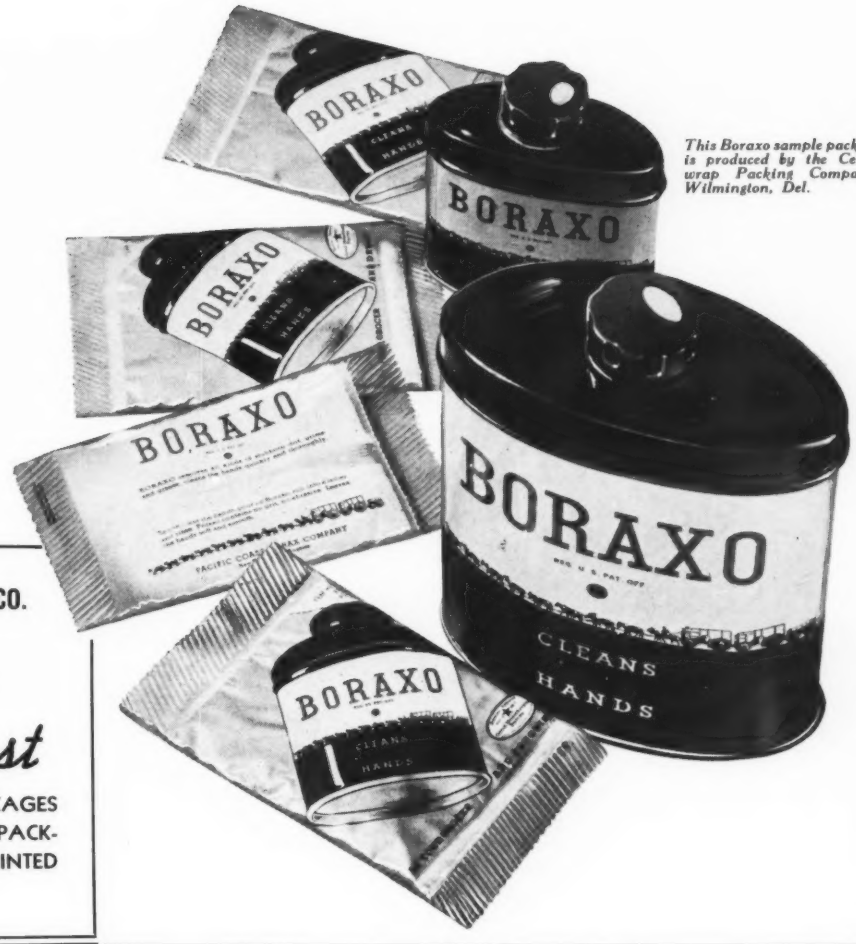
Lamson Corp., Syracuse, N. Y., has issued two pamphlets describing the application of conveyors and tubes in industrial and commercial fields. One pamphlet details information on package conveyors, the other presents data on food package conveyors. Both are profusely illustrated.

A

SAMPLE SAVING

WITH
THE

TRANSWRAP
MACHINE



This Boraxo sample package is produced by the Cellu-wrap Packing Company, Wilmington, Del.

PACIFIC COAST BORAX CO.

Saves 4/5 the cost

OF SAMPLE PACKAGES USING THE TRANSWRAP PACK-AGES FORMED FROM PRINTED "CELLOPHANE"

CHANGE from old-style miniature can to Transwrap package for sampling saved four dollars of every five spent for sample packages! Furthermore, the Transwrap package

SAVES ON SHIPPING AND MAILING COSTS, TOO!

The Transwrap package is lighter and smaller; requires no expensive carton or packer. Not only does it save in original cost of the package, but the cost of its distribution is very substantially reduced.

All these savings taken into account

THE TRANSWRAP SAMPLE REACHES 5 POTENTIAL CUSTOMERS FOR *LESS* THAN THE FORMER COST OF REACHING ONE!

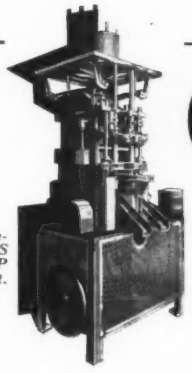
And, it does a better selling job, too . . . for, the printed wrap most effectively presents the Boraxo story in addition to the faithful reproduction of the regular package.

SIMILAR SAVINGS FOR YOU can be made!

For sample packages . . . for larger quantities and sizes . . . for coffee, candy, popcorn, nuts, crackers, powders, pills, tablets, granular materials and miscellaneous articles. *Ask about it; write—*

STOKES & SMITH Co
PACKAGING MACHINERY — PAPER BOX MACHINERY

FRANKFORD, PHILA., U. S. A.



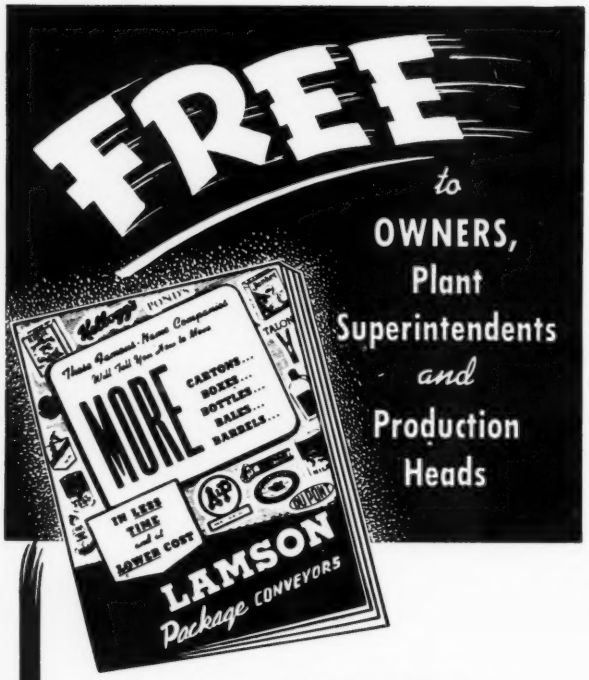
Folder fully describing S & S TRANSWRAP sent on request.

S&S TRANSWRAP

FORMS—FILLS—SEALS—60 OR MORE PER MINUTE!

Uses "Cellophane," or other heat-sealing material, from the roll . . . plain or printed. Insures a perfectly tight package, yet the serrated or notched cut-off makes it very easy and quick to open.

ALSO . . FILLING & CARTON FILLING AND SEALING & TIGHT WRAPPING MACHINERY • SPEEDS TO SUIT YOUR NEEDS 15-30-60-120 PER MINUTE



This illustrated booklet shows the way nationally known companies are solving their materials-handling, routing and motion-economy problems.

Before you buy any new equipment, change your plant layout or flow chart . . . or before you standardize, simplify, combine or eliminate any process or operation, send for this free booklet. It shows by word and picture how famous-name companies—whose products and reputation you know and respect—are meeting similar problems. How they are actually lowering inventories, speeding up deliveries, improving quality, eliminating manual operation and insuring a steadier flow of work. There's no cost or obligation entailed. Just sign and mail the coupon now.

LAMSON
Package Conveyors

LAMSON CORPORATION
706 Lamson Street
Syracuse, N. Y.
Please send by return mail a copy of your free booklet on Lamson Package Conveyors.

Name..... *Title*.....
Company.....
City..... *State*.....

Super-marketing cream cheese

(***Continued from page 76***) ture of cream. In most dairies, it is treated like a by-product—sold in bulk, unbranded and unidentified. Conestoga had other ideas, however. This company manufactures the cheese as an end product and has packaged the material

Bakers' cheese, generally unbranded, is clearly identified by Conestoga. A 4-color lithographed label has been adopted for 56-lb. wooden tub in which the cheese is sent to the baker.

in 56-lb. units with complete brand identification in the form of a 4-color lithographed label. By this simple expedient the company has captured a substantial portion of the market. "Bakers Best" is the name selected. This, together with the rhyming slogan "Beats the rest" and a cartoon of a baker chased by a bull, furnishes instant product identification. Bakers ask for the cheese more often by the picture than by the trade name.

Credit: Pliofilm by The Goodyear Tire & Rubber Co., Inc.

Manual-line efficiency

(***Continued from page 53***) company planned for an increasing number of girls and ran a conveyor system the entire length of a large room. The first labeling table fed into the conveyor at right angles at one end to make an "L." The layout was planned so that additional labeling tables would all feed into the same conveyor system.

All hand operations have been set up in units so that production can be increased simply by adding a new labeling unit or line of girls. The company planned

early for a possible 400 per cent increase in labeling personnel. Space was left for adding assembly lines as indicated on the drawing.

Filling and capping are semi-automatic machine operations in this plant. All machines are lined up in the chronological order of operation. The end of the last packing operation is brought right to the door of the shipping and warehousing department.

Further studies in the manual production conditions for this company reveal that inexperienced girls can be taught to label faster than girls accustomed to machine labeling and that two hours are the longest period the girls can label efficiently without change of routine.

Credit: Conveyor systems by Standard Conveyor Co. Liquid filling machines by Ertel Co. Powder filling machines by Stokes & Smith Co. Special frame hand trucks by Nutting Co.

An (electric) eye for results

(***Continued from page 38***) unit printed design is used, it is much less expensive to print it on a continuous web of paper than on individual pre-cut sheets. Handling difficulties make web printing particularly necessary on cellophane. When this printed web is run into a packaging machine, there arises the problem of keeping the printed design in register with the wrapping or packaging mechanism. The slightest error in the relation between the feed roll travel per machine cycle and the spacing of the printing on the web will so accumulate that in a short space of time the cut is being made through the printed design and spoilage occurs. By watching the passage of the printing, or more usually a register-mark printed along the margin of the sheet at the same time that the design is printed, the electric eye can gear the printed web to the machine cycle.

The size and cost of the photoelectric equipment required depend to a great extent on the speed of operation and the accuracy of register required. A dollar alarm clock is sufficient for a week-end camp, but a jeweled chronometer is required to navigate a battleship.

For slow-speed intermittently fed machines, it is often quite possible to take standard photoelectric relays off manufacturers' warehouse shelves to do the job. For higher speed machines and where greater accuracy is desired, it will be found that semi-standard units have been built up for this exact purpose. For the higher speeds and greatest accuracy, special apparatus can be built. The correcting motor may be driven directly by electron tubes functioning silently, accurately, without wear and requiring very little maintenance. For best results with this type of equipment it is, of course, most desirable that it be incorporated in the machine design. Most of the manufacturers of packaging machines now offer for their better machines, photoelectric controls, which have been worked out in close cooperation with the electrical manufacturers.

This has been just a brief glimpse of what photo-

This new Universal Kottoner will speed up production in any packaging operation where cotton or similar wadding material is inserted in containers.

Fully automatic, the Kottoner draws the wadding from a completely enclosed and contamination-free supply chamber, cuts it to proper length, inserts it in container, firmly compacts it, and returns the container to the conveyor line. It handles a wide range of container sizes at speeds ranging from 40 to 70 per minute.

Wadding is fully protected in its passage thru the machine. All lint and dust are removed by an exhaust fan at cutting station.

Entire head supporting plungers and guide tubes is adjustable vertically to suit various container heights. All control switches and handwheels are conveniently located on outside of machine. Machine frame forms a fully enclosed housing for all working parts. Write for complete specifications and prices.

CONSOLIDATED
PACKAGING MACHINERY CORP.
1400 WEST AVENUE BUFFALO, N. Y.

UNION –
The State of Being
United
...Funk & Wagnalls

Just about the time the Union of the States was reunited, Union Paste started its own unification project. And we've been making adhesives to do the job—*your* job—ever since.

Our chemists have compiled more than 700 formulas and we expect to have them compile 700 more in the next 80 years to fill the special needs of customers. We're not the largest company in the business, but we give way to no one in the size and completeness of our laboratory and the experience and skill of our technicians.

There's something in the New England way of doing things, too, that helps keep our customers satisfied. Perhaps it's the way you might like to work.

Established 1866

Union Paste Company

1605 HYDE PARK AVENUE • HYDE PARK, MASS.

tubes are doing for some members of the packaging industry. It is by no means a complete list, since new applications are being found daily. Some over-enthusiastic users have attempted to apply the photoelectric relay without analyzing the particular problem thoroughly. A little thought would have shown them that neither the phototube nor any other device not having the reasoning power of the human mind could produce the results which they desired.

The phototube is sensitive only to change in the amount of color or the light. Therefore, if the light source is so insecurely mounted that it may be easily pushed out of line, or if bright sunlight should shine through a near-by window on the phototube, unsatisfactory results might be expected. Cameras and binoculars will not work properly if their lenses are covered with dust, and neither will the photoelectric relay. The best model automobile will travel less comfortably on a very bumpy road and the photoelectric relay will operate less satisfactorily if the electric voltage operating it varies badly. In brief, like any good workman, the phototube works best when on a job which it has been trained (or designed) to do, in clean surroundings, and under systematic and sympathetic treatment.

Shulton's Desert Flower

(*Continued from page 72*) to transparency. A delicate hand-carved desert flower is imprisoned in each—the work of skilled craftsmen also in the company's New Jersey plant.

The plastic containers go to the consumer in cardboard set-up boxes, printed in pink with a desert flower motif in gray and white. These boxes are also fabricated in the company's own plant. There is inconspicuous product identification on the cardboard containers, also on the bottom of the refills. There is no product identification on the plastic containers. The company's policy has always been to keep its containers as free from advertising matter as possible to make them more personalized items for the woman who purchases them.

Refills for the powder boxes are cardboard drums, some with rigid transparent tops and some recessed to hold a puff. All these drums are sealed to assure a factory-fresh product. No refills are furnished for the lipsticks or rouge, due to the low price of these smaller items. The perfume and toilet water containers have glass refills with necks designed to fit into the molded plastic container. The talcum powder refill is cardboard with a metal sifter top. The containers are opened by removing the hand-carved top, inserting a special disk (consumer may use coin or nail-file) in a groove and turning easily while the refill bottle is pressed gently. The soap box is rectangular and reusable as a cigarette container or other convenient dressing table receptacle.

Credit: Cast phenolic resins by Catalin Corp.

Production men say

(*Continued from page 59*) to the production man. "I have been told that container—and by that I mean particularly glass—manufacturers are perfecting automatic inspection equipment so that a great deal of this ultimate inefficiency in operation of the automatic packaging line will be eliminated. I believe the same thing should be followed through by cartoning manufacturers. We ran into a very peculiar situation the other day in that occasionally through each box of some 1600 cartons each we found that when feeding them through our automatic cartoning machine the cartons did not open properly. This was not due to an over amount of glue or to improper alignment but evidently due to the fact that the gluing operation in the carton manufacturer's plant included a press or rolling operation that due to the condition of the cardboard, folded the cartons so tightly shut that there was not enough spring in them to afford proper operation on an automatic cartoning machine. While the total number of cartons that had this particular defect were small, the over-all efficiency of our line dropped to 57 per cent."

Summation

The interesting feature of this survey is the unanimity threading through the answers. The machinery manufacturers are agreed that machinery is still available, although orders must be placed sufficiently in advance of need to allow the "defense lag" full play. The same holds true of replacement parts. Machinery companies have seemingly adequate inventories on priority-controlled materials. Consumption of aluminum and zinc has already been cut to the bone—but the bone must remain. For stainless steel, aluminum and other contamination-proof materials are needed in many types of filling equipment handling products for intimate consumption. Plastics as substitutes are being experimented with, but no definite results can be announced by even the most progressive companies. This situation is made even more uncertain by priorities on essential chemicals used in manufacturing plastics.

Machine manufacturers do not think that semi-automatic equipment plus manual labor will replace unavailable machines. First, they say, semi-automatic equipment is just as hard to build as is automatic machinery. Secondly, labor costs and shortages are just as much the bugaboos of packagers as they are of machinery builders. Selective Service has already deprived many machine builders of irreplaceable trained and technical workers. This, coupled with an estimated 15 per cent rise in one plant's payroll plus other increases in the prices of semi-finished materials, will prove to be much harder on machine production than material shortages.

Defense orders have already absorbed a goodly portion of many machinery plants' production and will continue to take more and more as a larger section of our national income goes to defense.

Machine users seem to have been remarkably cagey

as essential replacement

If you are using tubes or vials of essential defense materials, now on priorities or critical lists, it will pay you to consider LUSTEROID rigid cellulose packages. Tubes, vials and puffer tubes made of this lightweight, unbreakable and colorful material can aid your merchandising efforts in two ways:

1) By building sales through their attractiveness, their smoothness, their unbreakability and

2) By cutting costs through their light weight (which means substantially lower shipping charges) and the fact that multicolor labels are applied integrally with the package during the manufacturing process. LUSTEROID comes in all colors, either transparent or opaque.

Samples sent on request.

LUSTEROID CONTAINER CO. Inc.

10 Parker Avenue, West South Orange, New Jersey

Illegible VD's* (size, style, color, grade, quantity and other *variable designations) on product, part, container, etc., cause incalculable confusion, delay, loss. Markem machines *print* these important supplementary details . . . upon paper labels to metals-saving plastics . . . better, faster, at less cost . . . and, from assembly to sale, speed up all in-between handling. Investigate these modern methods of marking. What is your problem?

Save label costs. Reduce box inventories. PRINT directly upon SET-UP and FOLDING BOXES; on varnished or lacquered stock, without smudging; on rolls of paper; print and punch unusual shaped tags and tickets. Quick type changes for variable designations; also uses type high electros. Bench mounted at any angle, prints from 1000 to 2000 per hour from integral motor drive. Saves at end of production or assembly. *Ask about Model BP*

ROLLS of paper (gummed or plain), cardboard, silk, cotton, etc., are automatically (1) fed, printed and rewound, or (2) fed, printed, perforated (paper only) and rewound, or (3) fed, printed, cut off and stacked, up to 125 per minute, in one or two colors. Stops at predetermined count up to 3000 without attendant. Quick type changes print all variable designations. Keeps reserve stock of labels, tickets, etc., always at hand. *Ask about Model 125*

Print PLASTIC PRODUCT, PART or CONTAINER from rubber; cardboard BOXES, TAGS, paper BAGS, etc., as and when needed, from brass engraved type. Quick type changes print, in one operation, all variable designations on areas up to $6\frac{7}{8}$" x $2\frac{7}{16}$". Quickly interchangeable work tables; a versatile, money saving adjunct to office, shop, factory. Speed from 1500 to 2000 per hour. Work always visible for quick location of print. *Ask about Model KD6*

Folks are often amazed at the versatility and adaptability of Markem Printers. We have developed hundreds of ingenious short cuts for applying trademarks and for variable designations. No matter what the packaging material or surface . . . no matter what the size, shape or contour . . . our methods concentrate upon doing the work *better, faster, at less cost.* Our 30 years of experience is always available for consultation.

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INDUSTRIAL MARKING HEADQUARTERS
MARKING PRINTING • EMBOSSING STAMPING • INDENTING MACHINES
For IDENTIFICATION * APPEARANCE * INSTRUCTION upon
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about national developments affecting their plants. They apparently have good inventories of replacement parts. Some have anticipated the machinery shortage with flexible production set-ups and wide margins of unused production in machines purchased against the emergency. The increasing mechanization of packaging—in which this magazine has played the part of advocate consistently since its inception—leaves most packagers well-equipped to meet emergencies by producing up to the hilt on equipment made faster than their ordinary needs warranted.

Both categories of men dependent on machines seem agreed on keeping employees as happy and healthy as possible, with possible labor shortages looming. One machine builder has fixed the optimum production of his toolmakers at 54 hours per week—40 hours of straight time and 14 of overtime. At this span, his employees put out a maximum of work with a minimum of errors and fatigue. This experience reiterates an important fact: that men can actually produce more and better goods in an 8-hour day than in a 12-hour day, that employers can only lose by overwork in shoddy goods and lowered production.

The lesson of all seems to be summed up by: intelligent long-range planning is the keynote to continued production and future expansion in packaging.

Dedicated to the daily shave

(*Continued from page 48*) machine which will apply kraft ribbon to 7,200 blades per hour. Following this, blades are double-wrapped in much the same manner as described above for the double-edge blades. In this case, however, neither outer nor inner wrap is die-cut.

The observer enjoys watching the next step—or really two steps—a carton-filling machine automatically inserts the prescribed number of single-edge blades into the light tuck-end carton and delivers them to a cellophane-wrapping machine which shoots them out for hand inspection at the rate of 9,000 per hour.

One more semi-automatic operation catches the visitor's eye—that of placing individual blades on advertising cards which are furnished to dealers for sample distribution. This machine, simply but ingeniously contrived by Pal Manager G. R. Mead, was built in their own machine shop. By means of it, 30 blades per minute are affixed to the sample cards. Feed and delivery are both hand operations, but the speed is more than adequate to keep pace with the hand packing operations of the units which go to the retail dealers.

Launched in the 30's, starting in small quarters, the Pal Blade Co. has expanded its floor area a number of times to keep pace with its rapidly growing output. They are obviously "bursting at the seams" of their present quarters—running three shifts per day.

Maintenance of quality standards and the clever

growing up of packaging and merchandising have contributed to their growth, of course. But what impresses the visitor most is a sort of self-sufficient ingenuity—good old-fashioned American adaptability—that makes the most of machine and human efficiency.

Credits: Wrapping machines, Fr. Hessler, Stuttgart and Pal Blade Co. Carton-filling machines, F. B. Redington Co. Cellophane-wrapping machines, Package Machinery Co. and F. B. Redington Co. Tuck-end cartons and wraps, Stecher-Traung Lithograph Corp. and Chopp Printing Co. Waxed paper inner wraps, Henley Wax Paper Co. Glassine inner wraps, Riegel Paper Corp. Set-up boxes, The Warner Bros. Co.

Let conveyors do the job

(***Continued from page 50***) an upper to a lower level. The straight chute is used where the distance from the upper to the lower level is short. Straight chutes used for long drops are usually not satisfactory due to the load being subject to accelerating speed. The spiral chute is used for long drops or in spaces where it is physically impossible to install a straight chute. Some spirals are made of gravity roller sections and are known as gravity roller spirals. The second group of package conveyors are those operated by power and generally termed power conveyors. This group is large and the following deals briefly with some of the basic types.

Live Roll Conveyors

This type of conveyor employs the use of gravity roller conveyor sections with various means used to power the rolls. Flat belts or round belts are snubbed against the under side of the rolls by means of snubbing rolls and sheaves located between the carrying rolls. The flat-belt type is commonly used when the conveyor is straight while the round belt is used when there are curves in the conveyor. Complete roller spirals can be powered with the round type of belt and in this way a controlled continuous flow of loads of greatly varying weights can be lowered without the danger of light fragile loads being crushed between two heavy bulky loads. The spiral, when powered in this manner, can be used to elevate loads without the necessity of transferring the loads from a lower conveyor to a vertical conveyor and then transfer again to a conveyor on the upper level. The rolls in live roll conveyors can also be powered by means of sprockets attached to the shafts or to the body of the rollers and the rolls are then driven by a series of chains.

Belt Conveyors

The belt conveyor is perhaps the best known type of power conveyor. Frequently, rollers are used for the intermediate sections between the end pulleys, but a more modern and usually more economical type of intermediate is the "slider" type. Ordinarily the

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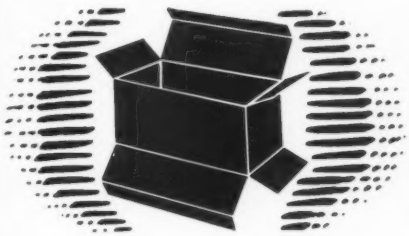
Presents

CARTON



PRINTING

No matter what process you use to reproduce your carton, Morrill has an ink to fit your purpose. Glistening gloss inks (Morr-Gloss) or flat, dull inks (Dullset), non-scuff inks, to mention a few, all are obtainable in the widest range of colors and tints. We will be glad to discuss your carton ink requirements with you. May we do so?

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bottom and side guards are formed of one piece of sheet metal. The belting slides in this trough. The slider type of intermediate is confined to comparatively light loads weighing 50 lbs. per sq. ft. or less, because of increased friction and wear from heavy loads.

Belt conveyors are often installed to convey loads up or down inclines. Cleats may be fastened to the belting, the maximum angle of incline being governed by the stability of the load. Cleats present a real problem, however, in transferring loads from conveyor to conveyor. To overcome this objection, belting with special non-skid surfaces is used. Angles of incline are then limited by the non-skid effect of the belting on the load being conveyed.

Chain Slat Conveyors

This type of conveyor consists of two strands of chain with slats fastened to attachments on the links of chain. It is used in place of belt conveyors when either the weight or the character of the load would damage the belting.

Drag Chain Conveyors

In this conveyor the chain in either single or double strand rides in a steel track. The load is conveyed by resting directly on the chain. The conveyor is frequently constructed with corners and also may be made in spiral form. To make this possible a two-plane chain is used, one that can negotiate both vertical and horizontal curves in one conveyor.

Overhead Chain Conveyors

In this conveyor, the chain is supported from trolleys which operate in or on overhead steel track. Means for attaching the load to the chain are provided and may be in the form of hooks or carriers. The conveyor dips when necessary to bring the load down to a working height for removal at an operation or for performance of an operation while the load is on the conveyor. In this way, the floor between operations is kept clear of obstructions.

Vertical Conveyors

There are several types of vertical conveyors. The reciprocating type consists of a car suspended by chain or cable over a sprocket or sheave with a counterweight suspended at the other end. The load is usually automatically conveyed to and from the car, while the travel of the car in the shaft is controlled by means of limit switches.

Continuous vertical chain conveyors consist of one or two strands of chain with cars suspended from the chain. The cars are finger type that comb through corresponding finger type loading and unloading stations to effect automatic loading and unloading. This type of conveyor permits continuous loading at one level and unloading at another level at much higher rates than is possible with the reciprocating type of vertical conveyor. Vertical chain conveyors can also be made to give fully intercommunicating service to several floors. With this type of conveyor loads at any floor may be dispatched to any other floor.

Wartime economy

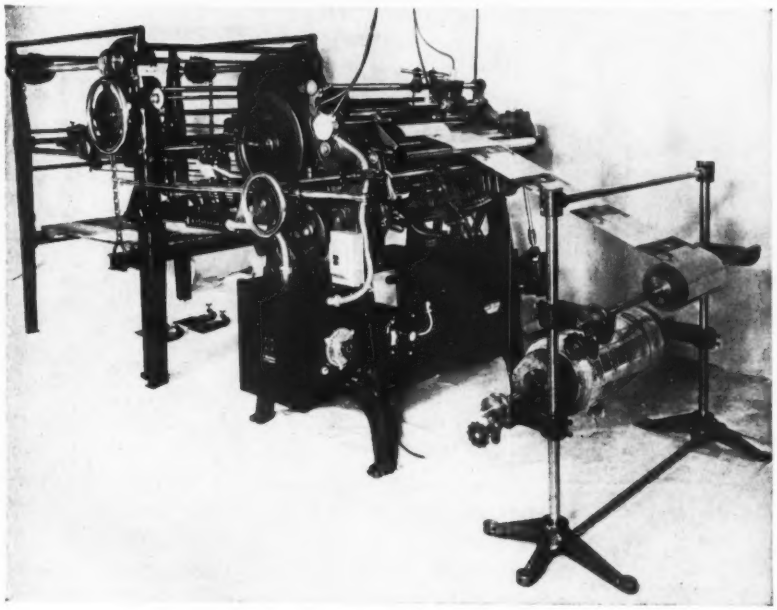
(*Continued from page 70*) are running their own reminder campaign, in addition to supporting the hosiery trade's joint scheme.

It is a little too early to report on the effect of the concentration plans on Britain's retail trade, with its peacetime turnover of £2,000,000,000 a year. Obviously, the most immediate reaction is going to be a further weeding out of the small shops, since the "multiples" are better fitted to withstand heavy reversals. This suffering of the small shops, as of the small manufacturing firms, appears inevitable, despite the Board of Trade's avowal to the contrary. While, after the war, there is a possibility (faint as it sometimes seems) that the small manufacturing firms will regain their competitive independence, there seems little doubt that the "multiples" and monopolies will have complete control of the retail trade here. Even the Board of Trade's promise to give every encouragement to schemes for grouping of small shops is a prophecy of this.

What, then, shall I say of the packaging future? Just as our products are to become more standardized, both because of shortages of supplies and because of trading economies, so is packaging becoming standardized and for the same reasons. What I mean to say is that the frills of packaging have almost entirely disappeared; if not because of actual shortages, then because they are considered wasteful, in any case. Thus, since I last wrote, there have been furthers implifications of packs. It is now almost impossible to get tin for packs designed for the home market, except in the cases of foods and perishables and even then substitutes must be used wherever possible. The latest and most important piece of package restriction news is that cellulose acetate can no longer be used for any form of non-essential packing on the home market. "Non-essential" covers all the luxury trades, such as cosmetics, toilet goods, perfumes, which had become so very much dependent on this material. I understand that there is no special shortage of supplies of cellulose acetate, but that they are simply required for more urgent purposes, such as the manufacture of face-masks for troops and other war work and, of course, certain supplies are available for packing goods for export.

Reverting to tin, I might mention that during 1940, Britain's tin consumption amounted to 29,225 tons, compared with 27,279 tons in 1939 and 18,290 tons in 1938, according to figures published in the Tin Research Institute's Statistical Bulletin. Efforts are being made

MORE AND MORE THE ELECTRIC-EYE BECOMES THE AGENT



by which "spot sheeting" is reduced to a simple and accurate operation. The new Amplidyne type of Eye now used, makes for still closer accuracies than before and greater freedom from variation.

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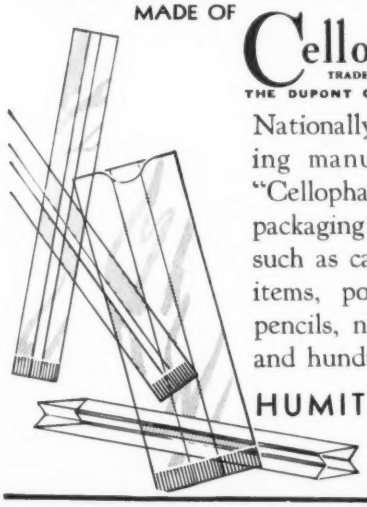

Nationally known as the leading manufacturer of small "Cellophane" containers for packaging light weight articles such as candy, cigars, carded items, pocket knives, pens, pencils, nut meats, fish lures and hundreds of other items.

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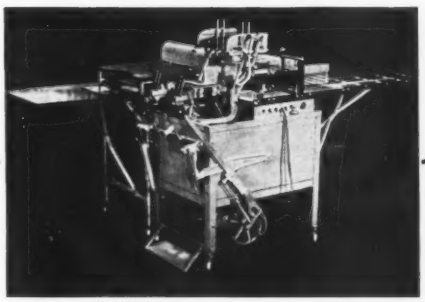

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HERE'S the ideal wrapping equipment for packers with a wide or limited range of package sizes. It assures big savings in labor and material costs. Wraps up to 21 perfect, sales-getting, glue or heat sealed packages per minute, using plain or printed cellophane, waxed, or kraft papers from LOW COST ROLLS! Simple 2 to 3 minute adjustment (without tools) for range of sizes from package of gum to big 5 lb. candy box.

Portable, compact, self-contained unit that springs into action when plugged into nearest light socket. Precision engineered and sturdily built for long, trouble-free, economical service. Used by many nationally known concerns. SAVE MONEY! . . write for details and prices now.

- Wrapping Machines • Bag Making, Filling and Closing (crimping) Machines • Sheeting and Gluing Machines • Hot Plates • Hand Irons

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to reduce this consumption and, indeed, there is an increasing export business in tin, partly to your own country. This instance will show how very much the idea of exports is pre-eminent over here.

On the export side, Metal Box Co., Ltd., our biggest tin package firm, has created something of a stir with a new flattened can which, they claim, "affords buyers even in the remote parts of the world the opportunity of securing perfectly made cans at a great saving in freightage costs." Their flattened can occupies only one-fifth the space needed to transport made-up cans. It is available with lined ends for processed products and with lever lids for dry products, such as milk, tea, coffee, etc. If the can is not processed after packing, the body may be attractively decorated.

The principle of the new pack is simplicity itself. The can body is cylindrical with side seam properly laid down and soldered. It is then flattened and packed separately from the tops and bottoms, which are supplied stamped and lined with sealing compound ready for use. Three simple machines are used to shape the flattened bodies for filling.

One other interesting development in the tin field is that the Tin Research Institute of Great Britain has discovered several alloys which are likely to improve on the alloys now used for pewterware. Two of the alloys contain more than 90 per cent of tin and have all the merits of malleability and attractive sheen associated with pewter, but both are substantially stronger. These improved materials will be used in the manufacture of tea-pots, coffee-pots, hot water jugs, etc.

Of the other packaging materials, plastics are the most interesting, but I think the experience with cellulose acetate is the best indication of plastics' future as a packaging material. Undoubtedly, plastics are excellent as a substitute for metal (are even sometimes an improvement) but their availability for such purposes is likely to be limited, especially as the suitability of plastics for use in the manufacture of aeroplanes, munitions and other war products becomes more and more realized. Then again, moldings for plastics are made of steel and steel cannot be spared, so new moldings have almost disappeared. Hence the standardization process is encouraged. At any rate, I have no news of any further applications of plastics to wartime packaging.

With respect to paper and board, there seems no doubt that packaging is being forced to turn to these materials more and more. Various types of coated papers are in higher demand than ever before. Generally speaking, there is an attempt to move one step down. Products which have been packed in wood, plastics and other heavy materials are, wherever possible, now being packed in strong fibre-board or other cheaper boards. Many products which previously appeared in board packs are coming out in more frail coated paper or thin cardboard packs.

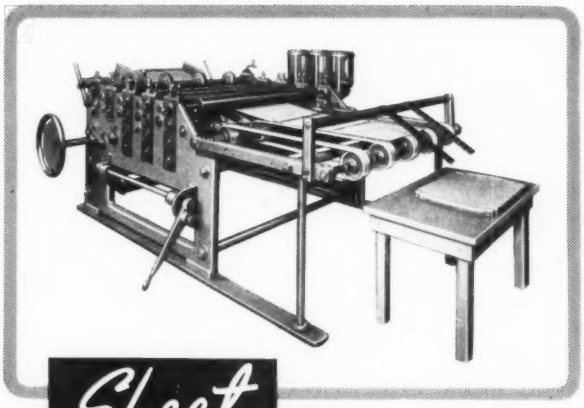
The supply position has been eased by the great advancement in the use of paper made from straw. As a result of negotiations with the Ministry of Supply, it has been decreed that all straw for papermaking shall be sold only through the newly formed Papermakers' Straw Trading Co. Furthermore, the National Farmers' Union has signed an agreement with the company to provide about 250,000 tons of best quality straw, baled on the farm. The paper trade expects to make between 75,000 and 80,000 tons of paper from straw from home farms every year. In addition to this saving of considerable shipping space, it is estimated that this will also save between £1,500,000 and £2,000,000 in cost.

Waste paper collection is being encouraged again. The Paper Controller points out, "In regard to paper and paperboard for wrapping purposes, restrictions are already operative . . . no person shall use any great quantity of paper wrapping or packing than is reasonably required." The Paper Makers' Association has also made an appeal, pointing out that losses through enemy action have produced shortages of some boards.

New packages are few. In the pharmaceutical trade, Pilgrim Products, Ltd., has introduced a lotion for the treatment of mustard gas, packed in a standard bottle but with a patent rubber eye-bath, fitted with in anternal molded thread so that it can be used as a closure. Henry C. Miner, Ltd., cosmetic firm, is marketing its "Lipid" liquid lipstick in a bottle container with a patented applicator stopper. Trapinex, Ltd. is applying brand names, etc., on to bottles and glass jars, which does away with paper labels. J. Goddard and Sons are using the same shoulders, necks and closures for tins containing two different products, i.e., furniture cream and a new webbing cleaner. These few examples are all notable for their keynote of economy, which is the main object of our packaging now.

New products (but packed in ordinary fashions) include an herbal tea; "Deb," a liquid material for giving long life to stockings; an egg powder which is also a baking powder and, of course, a steady stream of fire-fighting gadgets. One of these, Selfac, is interestingly packed in a lantern-shaped container made of papier-maché. Protruding from the base are celluloid tongues which, immediately they come in contact with flame or a temperature of about 135 deg. C., ignite and cause the pack to burst and throw a blanket of fire-killing powder over a circular area. The pack is so designed that it can be hung up from ceilings or wall brackets just above the goods to be protected.

Finally, there is a new development which will eventually have very important repercussions. Three industrial design groups are amalgamating. The new arrangement brings together various designers and packaging specialists, including among these John Tandy and Misha Black, the latter known to Americans for his work on the British pavilion at the World's Fair. There is evident awakening on the part of many manufacturers to the necessity for planning post-war industrial design now and with their resources amalgamated, the combined group can encourage this welcome trend.



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A piece of equipment which will enable any folding box maker to make up and ship folding boxes in any color or overprinted design at a minute's notice.

A high speed machine which will color or overprint box blanks after they have been scored and cut, thereby eliminating warehouse problems and promoting prompt and immediate deliveries.

Color placed in scores without offset or discolored flaps or edges. Made in convenient widths for all box purposes.

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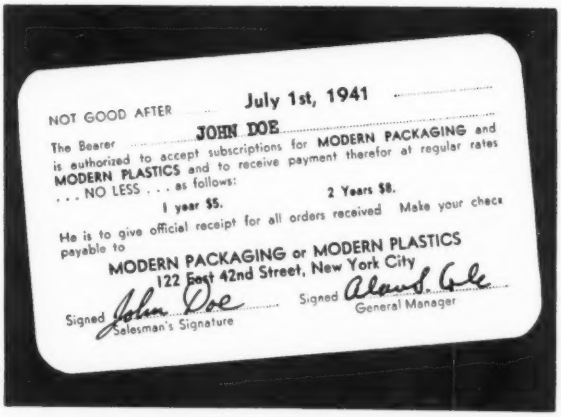
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is authorized to accept subscriptions for MODERN PACKAGING and MODERN PLASTICS and to receive payment therefor at regular rates . . . NO LESS . . . as follows:
1 year $5. 2 Years $8.
He is to give official receipt for all orders received Make your check payable to
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Signed Alan S. Cole General Manager

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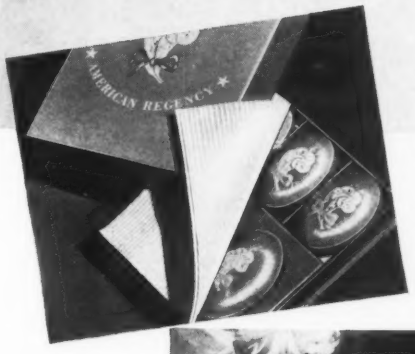
beautifies as it protects your product in transit



Showing how Lightfoot Shultz Co. uses KIMPAK* on its beautiful American Regency soap package.

Showing how Stevens & Co., Chicago, uses KIMPAK to protect its fine gift packages.

The soft, resilient "shock absorber" action of KIMPAK gives your product maximum protection against breakage and damage in transit . . . adds the sales advantage of attractiveness . . . saves time and waste in your shipping room. That's a winning combination!

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Don't delay. Mail coupon for new KIMPAK portfolio and for free samples for testing.

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Company .....

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Attention of: ..... *Our product is* .....

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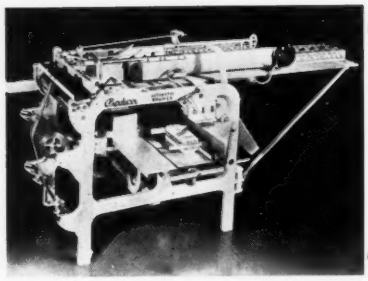

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F.O.B. Rock Island

1000 pkgs. per hour

For tea, crackers, booklets, small hardware, coffee, cheese, toys, tomatoes, toiletries, broilers, mushrooms, potato chips or most anything that goes in a box and is wrapped in cellophane or waxed papers.

A modern, versatile machine so simple in operation any average boy or girl can run it. You can switch from one size package to another in less than a minute simply by the quick twirl of two levers. You never have to change elevators. You never use a wrench. Send samples of your goods and let us show you what the VARIETY wrapper can do for you.

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for the TRAVELER'S PROTECTION

1. Bathrooms are antiseptically treated throughout. 2. Glassware is sterilized and wrapped in cellophane. 3. Telephones are *Sanitized*. 4. All bed linens and towels are *Sanitized*-laundered. 5. Extra blankets are *Sanitized* and specially wrapped for your use.

HOTEL EMPIRE

BROADWAY AT 63rd STREET • NEW YORK

The Elevated line, which formerly passed the door of the Empire, is now a thing of the past. Today, the hotel's fine park location at Lincoln Square is one of the quietest in all New York. On your next visit to the city, take advantage of the Empire's economy rate schedule.

Edw. B. Bell, Manager

RATES FROM $2 SINGLE
$3 FOR TWO

U. S. patents digest

(*Continued from page 92*)

their folded position, and sealing means acting along the abutting seam to cause the abutting faces to cohere.

DEVICE FOR APPLYING ADHESIVE MARKERS TO SURFACES. P. J. Pergallo, Hawthorne, N. J. U. S. 2,237,360, April 8. A labelling device consisting of a tubular form equipped with a plunger above the stack of gummed labels including a thin shoulder so designed as to arrange for the discharge of a single label at a time.

CIGAR WRAPPING MACHINE. E. H. Jahne (to J. C. Muller, Rotterdam, Netherlands). U. S. 2,233,452, March 4. A cigar wrapping machine consisting of elements so functioning as to overlap the ends of a wrapper about the cigar.

METHOD OF PACKAGING MATERIAL. I. Gurwick to Shellmar Products Co., Mt. Vernon, Ohio). U. S. 2,233,945, March 4. A method of packaging materials consisting of subjecting an open container to the action of heat, said container being made from rubber hydrochloride. The momentary exposure to heat softens the container which is filled and closed before the effect of the heat is lost.

PRINTING MEANS FOR LABELLING MACHINES. G. F. Von Hofe (to New Jersey Machine Corp., Hoboken, N. J.). U. S. 2,235,054, March 18. A labelling machine including a label applying station and means of carrying the label to that portion. A rotating printing member carrying type for imprinting on the label. Means for rotating said printing member to shift the type to imprinting position on label prior to its arrival at the applying station.

AUTOMATIC WRAPPING MACHINE. C. H. Petskeyes & I. C. Gillman (to Gellman Mfg. Co., Rock Island, Ill.). U. S. 2,235,503, March 18. A wrapping machine with a movable loading table cooperable with an article elevator. An adjustable article holding means on said loading table and movable therewith to engage an article moved from the loading table on the elevator, and a mechanism activated by a unitary control for simultaneously and correspondingly adjusting said holding means and end fold to accommodate articles of different size.

AUTOMATIC PACKAGING MACHINE. R. W. Smith (to Transparent-Wrap Machine Corp., New York, N. Y.). U. S. 2,237,119, April 1. A tube making apparatus including a guide roller having a horizontal axis of rotation, a vertical molding and filling tube, the upper end beneath and to one side of a roller and related appliances effecting the edges to overlap which are then heat-sealed.

WRAPPING MACHINE. W. H. Sergent (to Ideal Wrapping Machine Co., Middleton, N. Y.). U. S. 2,237,375, April 22. A machine for moving candy from a conveyor to a sizing position, squeezing the candy to a predetermined size, a wrapping mechanism and the handling of the candy while being wrapped.

Tape, Ribbon, Cord & Straps

Ribbon

DISPENSING CARTON FOR RIBBON. S. M. Andrews (to P. L. Andrews Corp., Brooklyn, N. Y.). U. S. 2,238,548, April 15. A carton open at its top and bottom for dispensing ribbon or tape-like material, means to close the bottom of the carton, a wall having a vertical opening extending upwardly from the bottom, transparent sheeting covering the opening, a transverse slot between the interior and the outer flap which has an indented notch to expose the end of the ribbon.

Out from under the bushel

(*Continued from page 66*) cellar-way shelf, in the tool chest, in the broom closet or in the barn or garage. But in the hardware store, it is essential to bring oilers out from behind the lines into front-rank position if sales are to be stepped up. The Eagle Manufacturing Co. ships its oilers in brightly colored cartons which may be converted quickly into a counter display upon receipt by the dealer.

Did you ever buy a piece of coil wire in a hardware store? Unless the dealer had a Tate wire assortment display sponsored by E. H. Tate Co., the salesman probably measured the 10, 12 or 20 feet from a bulk coil, snipped it off with a pair of pliers which he had to dig out of a tool drawer or kit; then he wound it up wrapped it and charged you.

The Tate wire display does away with all this and, in a low-priced line, it increases the unit of sale, since the merchandiser keeps wire assortments in handy length coils out where the consumer can see, inspect and purchase. The unit requires only a minimum of space and, as a handy reminder, it tends to account for extra sales, as well as saving time for both retailer and consumer.

Belt lacing has been sold in hardware stores as long as it has been on the market, but until recently it has been kept in obscurity among the 30-odd thousand hardware stock items. Armstrong, Bray and Co. and the Flexible Steel Lacing Co. are now supplying hardware dealers with belt lacings packed in display cartons, which permit the heretofore shelf items to be brought on to the counter where the potential purchaser may be reminded to buy.

Lawn and garden hose nozzles are prominently displayed in the hardware store if they are made by H. B. Sherman Manufacturing Co. This firm has adopted a display that presents a complete stock comprising three each of four different hose nozzles and thus offers consumers the best opportunity to make a selection in their chosen price class.

Another hardware stock item that would ordinarily be relegated to back scenes is oil-stove and oil-range asbestos wicking. No doubt the majority of housewives wait until the old wick refuses to function before they consider replacement a "must" problem. "Flamemaster," a display-packaged asbestos wicking, made by Triplewear Brake Lining Corp., has developed an all-metal roll-wick dispenser, furnished free to dealers who purchase two of the most popular wick sizes. The latest stove and range wick specifications, given by the burner manufacturer, appear on both the front and rear panels of this counter merchandiser.

Manila rope, formerly a stepchild in the hardware store, was brought out of the cellar only a couple of years ago by the Waterbury Rope Co. For that display and merchandising feat, the company received one of the All-America Package Competition awards.

Similarly, chain is now being merchandised by modern display and packaging methods. The Cleveland Chain and Manufacturing Co. supplies a reel salesman

Federal functional closures increase sales. Because they make liquid and semi-liquid products easier to use, because they cut waste and eliminate messiness — consumers prefer Federal topped packages every time.

And, because they make your sale package a dispensing package as well, they keep your product constantly before the eyes of Madame Consumer, which assures of *re-sale*, the only sound basis of successful merchandising.

Federal closures are tailored to fit your package. They make ideal premiums. They have proved their popularity with millions of sales every year. Let us show you how to put this merchandising force to work for your package and product!

CLOSURES WITH A FUNCTION

Federal TOOL CORPORATION
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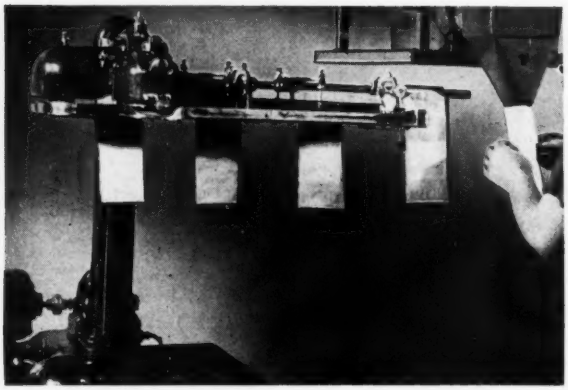
40 BAGS} SEALED A MINUTE!



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Rapid, automatic bag sealer—rotary type, belt carry for speedier operation. 40 bags a minute in actual installation. No extra operator on certain types of bags. Seals Cellophane, Pliofilm, Diafane, Maralux and other thermoplastics. Independent thermostats control pre-heating unit for conditioning where necessary. Does labelling, too.

Write for further information. Complete line on view in operation in our showroom.

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➡ WANTED: Representatives to call directly on manufacturers, packers, and jobbers, on commission basis by oldest manufacturers of Pliofilm bags. At present all territories still open. Reply Box 138, Modern Packaging.

➡ SALES PROMOTION MAN & CORRESPONDENT, one who is a master of business letter writing—has a background of sales promotion and sales management experience in packaging industry. Preferably a man who knows printed cellophane and similar sheetings. Wonderful opportunity for right man with progressive rotogravure firm in the East. Please give full details and salary desired. In strictest confidence. Reply Box 139, Modern Packaging.

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Classified advertisements may be inserted at the nominal rate. $5.00 per inch. Minimum space—1 inch. About six words per line, 10 lines per inch.

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Positions Wanted, Help Wanted, Lines Wanted are typical categories.

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display-stand which actually puts chain on parade in the hardware store. It holds four reels of chain and it is made available to dealers with the purchase of any one of ten chain assortments. It serves both to stock chain and to dispense it, much like the Waterbury rope unit previously described.

The McKay Co., another manufacturer of chain, supplies the "Silent Chain Salesman" in which display the assorted types of chain are dispensed from standard 50- and 100-ft. cartons. These cartons are stored compactly in a cabinet in the rear, the ends of the chain are then brought up through holes in the top and thence down into the slots at the bottom. Jobber refills can be secured from regular stock.

And so it goes—and goes.

To one who has been closely connected with retail hardware for the past quarter century, the progress in packaging and display in hardware stores seems well-nigh astounding. This modern merchandising advance has brought hundreds of "under the bushel" items from their unseen locations and has placed them directly before the customer. Extra sales invariably result. This has proven to be not simply good business for manufacturer and retailer, but also service for the customer. What more can be desired from modern packaging and display methods and practices?

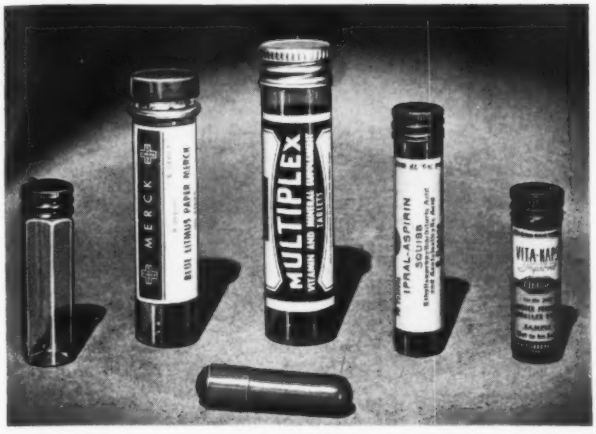
For machinery manufacturers

(*Continued from page 35*) Now, however, is an excellent time to discuss with him those new ideas that you want turned into machinery later. Now is a time for long-range, future planning of packages that will require new models of machinery. The new models cannot be produced today, but much of the planning work can go on right now. By planning ahead for the new things that business will produce when this program is over, we can do much to help on readjustment. If producers of packages, as well as producers of machines, are ready with new ideas, when that time comes, there will not be the let-down that so many are afraid of. Your machinery manufacturer will be glad to talk with any one on these problems. No matter how busy his shop may be on active defense work, he realizes that planning for the future is of vital necessity. Today, much more than in normal times, do we need that relationship of mutual trust between the machinery man and his customers. Such a relationship, fostered now, can help a great deal in the economic readjustments to be made in the future.

The packaging industry has led the parade in the last 20 years; the packaging industry stood out in the depression of the thirties, and I believe that, if the users and suppliers of packaging machinery will share today their thoughts for the future, the packaging industry can again lead us out of the difficulty we shall all be facing when the defense activity ceases.

SALES BUILDERS for the Sales-minded

CELLUPLASTIC
shatter-proof
CONTAINERS



Colorful Celluplastics win *and hold* new customers for your product . . . *Win* them by their attractive *quality* appearance, and *hold* them because they are *safer* to use; they're SHATTERPROOF—they give greater protection at home, and in daily pocket-or-purse use. Celluplastics are 80% lighter than glass —they cut down shipping costs!

SEAMLESS • SHATTERPROOF • FEATHERLITE

COLORFUL • PROCESS-LABELED in manufacture

Why not compare *your* product, packed in a Celluplastic container, with what you are now using? *See* and weigh the advantages!

A complete package design service — without cost! *Write for Samples!*

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HYCOLOID · CLEARSITE

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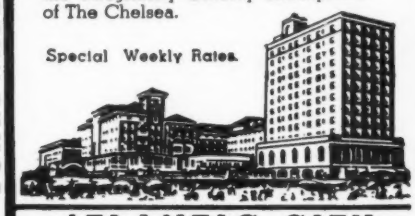

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or BLESSED WITH

UP-FRONT SALES?

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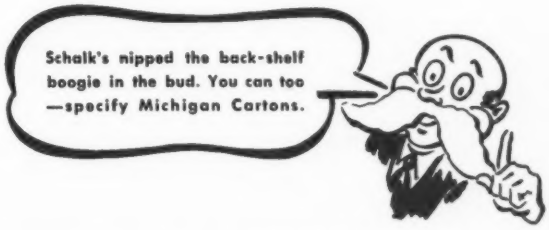
A poster style was decided upon, outstanding for its boldness and simplicity of design. Both package and display cartons tell the customer at a glance the product's name, application and price — a complete story in terms of the utmost simplicity.

To round out a complete packaging program, Schalk Chemical Co. specified Michigan Cartons. Actual tests proved that Michigan Cartons had a built-in strength that meant extra protection — a smoother, clearer surface that gave sharper plate impressions, more brilliant colors.

Imagine what these up-front Michigan Cartons can do for your product! Why not take advantage of the complete design and technical service that we offer you? Write or phone today.



MICHIGAN CARTON CO.

Battle Creek, Michigan

COLORFUL BEETLE PACKAGES CAPTURE IMPULSE SALES

People buy many things on the spur of the moment and colorful, lustrous Beetle* packages can inspire such impulse purchases for *your product!*

Kem Plastic Playing Cards, Inc. know this from experience. Their attractive, smooth ivory Beetle package is stopping thousands of casual shoppers, inviting them to look, and *buy!*

Smart merchandisers *know* that sales can be increased by the simple expedient of using a colorful, attention-compelling package. Beetle provides just such a package—and more—a package that is light in weight, durable, that stays "fresh" and attractive. For long or short volume items, a Beetle package can be produced at surprisingly low cost in your own or a standard design. Write us for more information.

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